

George P. Difani

George Difani
6816 Stanley Avenue
Carmichael, California

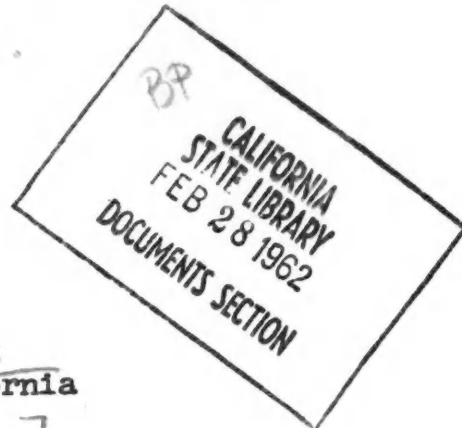
TRANSCRIPT OF PROCEEDINGS

(Edited)

ASSEMBLY INTERIM COMMITTEE ON FISH AND GAME

Hotel Hacienda
San Pedro, California

October 4, 1957.
10:00 A.M.



FRANK P. BELOTTI, CHAIRMAN

*

INDEX OF WITNESSES

(In Order of Appearance)

	<u>Page</u>
1. Dr. Claude ZoBell, Institute of Marine Resources.....	1
2. Adm. Charles D. Wheelock, Director, Institute of Marine Resources.....	2
3. Carl L. Hubbs, Scripps Institution of Oceanography.....	5
4. Conrad Limbaugh, Institute of Marine Resources.....	9, 93
5. Manning Moore, Long Beach	11, 56
6. Robert Ketcham, Ocean Fish Protective Assn.....	13, 47
7. Lee F. Payne, Los Angeles County Fish and Game Comm.....	14
8. Matthew Eggett, Los Angeles Regional Water Pollution Control Board No. 4.....	15
9. A. M. Raun, Chief Engineer, Los Angeles County Sanitation District.....	21
10. Mrs. Dessie G. Myers, Lomita Property Owners and Registered Voters Assn.....	24
11. Dr. Frances M. Clark, Citizens Pollution Committee of the Harbor Area.....	25
12. Herbert C. Davis, California Fish Cannery Assn.....	33, 60
13. W. T. Shannon, Deputy Director, Fish & Game Dept.....	35, 81
14. Paul Bonderson, State Water Pollution Control Board.....	38
15. Clarence C. Jones, Portuguese Bend Club & Home Owners Assn.....	42
16. Carrol M. Wakeman, Engineer, Los Angeles Harbor Dept.....	43
17. Homer Lockwood, Calif. Council of Diving Clubs.....	44, 90
18. Charles Blakeslee, Assoc. Ed., Skin Diver Magazine.....	45
19. Howard Miller, San Pedro Fisheries Institute.....	58
20. Donald P. Loker, Star Kist Foods.....	66
21. Richard Croker, Dept. of Fish and Game.....	66

(continued)

INDEX OF WITNESSES (Cont'd.)

	<u>Page</u>
22. A. H. Mendonca, Pres., F. E. Booth Company.....	77
23. Ivan Rukavina, Owner of the fishing boat "City of Salle"....	79
24. Mrs. Nellie E. Gillette, Calif. State Grange Advisory Committee.....	86
25. Fritz Mangold, Western States Conservation League of California.....	89
26. Reg W. Richardson, La Jolla Skinsters & San Diego Harbor Grange.....	97
27. John Luhnnow, Secretary, San Diego Skin Divers.....	100
28. James Christensen, Long Beach.....	101
29. Clyde Denton, Calif. Game Improvement Assn.....	105
30. John T. Meyers, Pines to Palms Wildlife Committee.....	111
31. Dr. J. M. Kolisch, Pines to Palms Wildlife Committee.....	113
32. Exhibit A, Proposed Plan for Big Game Management.....	114, 115, 116, 117, 118

ASSEMBLY INTERIM COMMITTEE
ON
FISH AND GAME

Full Committee Hearing
San Pedro, California
October 4, 1957 - 10:00 A.M.

MEMBERS IN ATTENDANCE:

Frank P. Belotti, Chairman
Don A. Allen, Sr.
Donald E. Anderson
Pauline L. Davis
Myron H. Frew
Jack Schrade
Vincent Thomas

STAFF MEMBERS PRESENT:

N. B. Keller
William Scheuermann

CHAIRMAN BELOTTI: (After introduction of members):

Also I would like to introduce Mr. William Scheuermann who is in the program sponsored by the University of California with the assistance of the Ford Foundation, and he has been assigned to this Committee on matters relating to Fish and Game. Mr. Thomas, at the last session of the Legislature, introduced a Resolution calling for the investigation of certain problems in connection with the Department of Fish and Game and this subject matter has been assigned to Mr. Scheuermann. His job will be to catalog and correlate all the information based on the studies over past years by that Department and then later on it will be referred to qualified personnel to evaluate.

The first subject for discussion is kelp cutting and privilege tax, AB 3404 and 3405, referred to this committee for study during the interim. I would like to call on Dr. Claude ZoBell of the Institute of Marine Resources to present a statement on the subject matter so as to give the local people an opportunity to know exactly what has been done.

DR. CLAUDE ZOBELL, INSTITUTE OF MARINE RESOURCES, LA JOLLA

Mr. Chairman, I would like to ask Admiral Charles D. Wheelock, Professor and Director of the Institute of Marine Resources, to speak

first for our people.

ADM. CHARLES D. WHEELLOCK, DIRECTOR, INSTITUTE OF MARINE
RESOURCES, LA JOLLA

Over a long period of years the scientists at the Scripps Institution of Oceanography have studied and worked on the subject of kelp. The Institute of Marine Resources was inaugurated on the recommendation of the President of the University about three years ago. It has its headquarters at Scripps Institution in La Jolla and the present efforts in the investigation of kelp matters is under the aegis of the Institute of Marine Resources.

This investigation has been increased to a very large extent, beginning just a year ago by a grant of funds from the Department of Fish and Game. The purpose of this grant is to discover facts about the growth, the disappearance and the survival of kelp and the influences which affect its well-being. The program, after a great deal of discussion, was conceived as one which would take about five years. This is based on the knowledge that we have gained in the study of the kelp previous to this time. It was realized that we would require something like this length of time in order to get sufficiently qualified investigators to take time out and join us for the work.

We have been going about one year so far. We have the staff that is required. They have come from various places - the farthest the man who is going to engage in the study of the fishing in relation to kelp. We explored our own country and could not find an available and satisfactory candidate so we had to go all the way to South Africa for Dr. David Davies who joined the staff only on the first of August. He obviously has not been able to turn in a report so far. He is in an environment that is different from that in South Africa and he has much to learn before there is a lot of product of his studies.

The others on the team have learned to grow kelp in the

laboratories so that the details of its life can be carefully studied and evaluated so that plants can be transplanted to areas where they can be watched for environmental influences and influences of man's effects upon kelp as an example from sewage and other things.

Now, the subject of the two bills that are being considered are cutting and the privilege tax. The relationship of our work to these two subjects is important but not direct. We have to work on the basic values that are involved in by the kelp itself. The relationships between the kelp and its environment, the possibilities of growing kelp and making new beds, the influences of waste disposal and the cutting on the kelp are all things which will be a fallout from the more general and basic things that these investigators are actually going into now and this is the reason why we wanted a five-year program. The results so far are not very conclusive. The body of knowledge is increasing and we would hope that in another year that before perhaps the deliberations of your Committee are about to bear out specific legislation, we would be able to give you additional information in a variety of things where information is and the conclusions are now quite inconclusive.

We have with us this morning all of these investigators. Four of them are supported directly by this grant from the Department of Fish and Game; three of them are supported by the University on other funds; Dr. Davies is supported directly by the Institute of Marine Resources as regards his salary, so that it is a common effort on the part of the University and of the state supported agreement. They are here and they will be glad to answer any specific questions in their field. I should think that perhaps the best way to handle this, if there are questions, is to direct them to Dr. ZoBell who will indicate to whom the specific question should be directed.

MR. THOMAS: One of your members of Scripps who made this report

on kelp took five and a half years, and the report says "this is a final report and the result of research during five and a half years from 1948 to 1954. Modern techniques and equipment were utilized. Throughout the investigation the apparent decline of sport fish was causing sport fishermen great concern. Among other factors kelp harvesting was blamed for the poor catch of the sportsmen". The findings in this report were that kelp cutting does not affect fisheries. Now what could the scientists find out in this \$30,000 report that you want to take another five and a half years to investigate that hasn't been found in the report that was filed by Scripps? Isn't this the final report? You have the same investigators.

ADM. WHEELOCK: One of the investigators who is with us and who is paid from the University funds was the principal investigator on this report; that is Mr. Conrad Limbaugh who is here this morning. He is the diving officer and is the training officer for our 35 or 40 divers who are changing constantly. This was a part-time job that he took on voluntarily himself and even if it were conclusive with respect to the cutting of kelp and its effect upon a fishery, there are so many other aspects to the value of kelp to the state that we feel convinced that the work should go on. The economic values involved.....(interposed)

MR. THOMAS: Maybe Mr. Limbaugh.....(interposed)

ADM. WHEELOCK: I think Mr. Limbaugh should speak to the point, Mr. Thomas.

MR. THOMAS: My question was specific. This was filed by University of California, Institute of Marine Resources, La Jolla. It took five and a half years to complete this work. Are you finding out something different than what is in here?

ADM. WHEELOCK: We are finding out a lot more and I think it would be well for the botanists and the scientists -- after all, I

have been a Naval officer until four years ago. I think it would be much better on these questions.....(interposed)

MR. THOMAS: Well, I am asking the question to any one of the panel. We don't want to keep spending money all the time for research and coming to no conclusions.

DR. ZOBELL: I should like to ask Professor Carl L. Hubbs to attempt to answer your question.

CARL L. HUBBS, PROFESSOR OF BIOLOGY, SCRIPPS INSTITUTION OF
OCEANOGRAPHY, LA JOLLA

I have been interested in this investigation since the start. I had a hand in the general direction of the work that is referred to in the report that Assemblyman Thomas mentioned. We should keep in mind that this is an investigation that was undertaken, and it did last over a number of years, by a student who was gaining in training and experience during this time, doing other student work, doing other projects including the development of the use of the aqualung in underwater research. This was the part-time work of a single man.

We have now a kelp project with a small force of enthusiastic investigators taking up this problem. It seems to me that we could not expect a single man, beginning his work to do this job and to reach conclusions that would render any further work unnecessary. Mr. Limbaugh was a beginning graduate student when he was doing this, he has developed his competence very rapidly and he has certain innate abilities. I have trained a very considerable number of fishery workers in my career and I have never had a man who has had a keener power of observation and is able to draw conclusions from those investigations more soundly. He is a very able man, but this is the work of a single man and the problem is an immense one that no one man even in several years could completely solve.

It is the type of investigation that all of the fishery agencies,

federal and state, have been tackling. The relationship of any one species to its environment are so complicated that one man cannot completely solve these problems. We have been willing to undertake this investigation, to go to the four corners of the world to get an investigator who was, we think, capable of carrying on this particular aspect of the investigation that is referred to, not only to review the results already obtained but to study them in different ways.

It would be helpful, perhaps, to the Committee if I could list just three or four of the types of investigation that would bear upon this problem and the question of whether or not kelp cutting is beneficial. We have not undertaken many aspects of the problem that are not even mentioned in the report that Mr. Thomas has brought to our attention.

MR. THOMAS: This is a summary of the report. This has been adopted by the Institute. You signed the report as Supervisor of Research and the Director, Admiral Wheelock, signed it. The final summary says harvesting has no detrimental effect on fish population. Now, my question was, is this a final report or is this just a single man's report to secure a master's degree? What is the purpose of this report?

MR. HUBBS: The purpose of the report was to bring together the evidence and conclusions of this one man. There are certain aspects of scientific publication and scientific work that perhaps are a little different from that in some other fields. For instance, when the University or the State Fish and Game publishes an article, they do not, by so doing, necessarily prescribe to the views of the author. The scientific worker and author have certain privileges to conduct these investigations or arrive at conclusions. The fact that I signed this as Supervising Investigator indicated that I did my best to see that the investigation was conducted in a way that would lead to best

conclusions but it doesn't necessarily mean that I subscribed to every conclusion.

I think Mr. Limbaugh was perhaps a little too curt in that statement in the summary. He should have added there that all of the data that he has gathered has led him to this conclusion that there is no harmful effect on the fish life or the fishing as a result of harvesting kelp and he has a very large body of observations that lead to that conclusion; however, there are other possibilities that should be investigated further--if there is any harmful effect by cutting the way it is done now. One of the main lines of investigation we had was to see if a modification of the methods of harvesting might affect the result. For instance, this strip cutting--more or less like modern forestry in the woods--leaving strips of kelp uncut.

MR. THOMAS: So it is possible that your panel may just about find this report as useless. Your findings could be just the opposite.

MR. HUBBS: In my personal opinion I do not anticipate that it will be that extreme. I do not believe that the conclusions would be reversed. They might be modified to some extent.

MR. BELOTTI: You are satisfied, though, that there is considerably more work that should be done.

MR. HUBBS: I am positively convinced that before we can possibly answer the question as to whether harvesting kelp is in the public interest, there are a variety of problems to discuss. Questions of increasing the beds, the planting of beds, the control of the organisms that kill the beds, the determining of cause of depletion, the possibilities of improving the type of kelp to get a type of kelp that would not rot and cause the trouble on the beach. There are problems of pollution from the kelp.

MR. ALLEN: Dr. Hubbs, let's understand the problem and I think we can come to it quickly. Is this not a preliminary study that was

made on limited funds? In other words, a preliminary survey just like we do in the engineering field all the time. From your investigator's observation, it indicates certain further studies that could be done and the conclusions that he brings in his preliminary reports are probably as accurate as any other person could make them.

Now, you only have limited funds for this student and he can only do it over a period of five years. He didn't walk this ocean floor eight hours a day which is impossible. He had to dive at certain times, under certain conditions, under different types of conditions and limited times and it took over a period of five years of different type of work.

It is the same as if we send a surveyor out here to ascertain a freeway. They may survey four routes to find the most logical and come to the most logical conclusion on one route. Isn't that right? Then your engineers go back and make their final plans to fit that particular route. That's just exactly what Mr. Limbaugh has done in my opinion.

MR. HUBBS: It was a pioneering study, I think a very well conducted one and conducted, I'm sure, in a scientific fashion without any pressure from any quarters to produce or modify the results in any direction.

MR. THOMAS: How many years do you think it will take before the Committee could have a final decision as to whether kelp cutting is detrimental to fisheries?

MR. HUBBS: Finality is a difficult word to define in a case of this sort. The kelp study committee which proposed this investigation which led to the establishment of the program set it up as a five-year program which indicates that this group felt that five years would be needed to arrive at reasonable conclusions. Work will still need to be done at the end of five years, there will be work that will need to

be done at the end of 500 years. Conditions will change. There are various factors - problems have been solved in agriculture, and still we have thousands of workers over the country working on agricultural problems.

MR. THOMAS: The bill that is before this Committee states that no kelp shall be cut or harvested in any portion of District 19 lying off shore of Los Angeles County. So if you say it takes five years, then the only thing we can do is delay action on this bill another five years.

MR. HUBBS: I am not competent to answer a question based on legislative matters, sir, but I can say that our evidence to date does not indicate that there is a harmful effect.

DR. ZOBELL: If it would be the same to the Committee, I should like to ask Mr. Conrad Limbaugh to take the stand for a moment to outline briefly his conclusions based upon past observation and to place the emphasis upon why he thinks it is important that additional observation will also likely be made.

MR. THOMAS: Whose report is this?

DR. ZOBELL: This is Conrad Limbaugh's report.

MR. THOMAS: Oh, it's not the University of California then?

DR. ZOBELL: This work was done at the University of California, but it is the report of Conrad Limbaugh and it has been approved by the Supervisor, Professor Carl L. Hubbs and the Director of the Institute of Marine Resources.

CONRAD LIMBAUGH, INSTITUTE OF MARINE RESOURCES, LA JOLLA

This is my own work. I agree with Dr. Hubbs' statements about the report and also feel additional work could be done profitably. I think that Mr. Thomas doesn't have a clear concept of scientific reports so I would like to explain the system as I see it. These are my own opinions.

When a piece of scientific work is done, other scientists respect this work as an attempt to arrive at the truth. Now, our scientific concepts are continually changing or being modified. I might even modify some of my own results sometimes and I have seen results of other scientists who have modified their own results. We do it to the best of our human ability and it is not something that everybody in a large institution like the University of California will agree upon. All they agree upon is that this is one man's word and this was the final report. For me, this is the last that I have anything to do with the study of kelp. That is all I have to say other than I have pointed out places where, in that report, I felt research could be continued.

MR. THOMAS: Do you still hold this to be true -- that harvesting of kelp is not detrimental to fish population?

MR. LIMBAUGH: From my observations, yes.

MR. ALLEN: Mr. Limbaugh, in the search of these mysteries of life, isn't it a true statement of fact that in the scientific field you fellows often run up against blind alleys where one man will see at one given time, under given circumstances, a situation upon which you can base your final conclusion, yet upon other circumstances and depending upon other elements in it, you can either verify or you can find the opposite?

MR. LIMBAUGH: I think that is very true. When you make a conclusion based upon your own observations, it is the same thing that you people do.

MR. ALLEN: In other words, there is a little difference in going out and getting a verifying team together to each work upon a separate infinite part for a \$30,000 report than it is for a man who can do it during his spare time over a period of years for a meager sum like about a thousand dollars a year.

MR. LIMBAUGH: I think that is very true that with more equipment

plus the background that has already been established, that you can get a more accurate picture. You will never get a complete picture of what goes on, it's a dynamic picture, it changes with time. Our own population pressures along the coast and changing oceanographic conditions, things of that sort, make it a dynamic problem which changes from day to day.

MR. ALLEN: And another thing, too, if you went into this matter, based on the one premise that does the harvesting of kelp, under proper conditions, injure or cause nuisances, you are fairly well limited to that one field.

MR. LIMBAUGH: First of all, in this study I spent a great deal of time finding out which fishes lived there; then I found out something about their habits and then tried to find out what the effect of harvesting was on these fishes.

MR. ALLEN: That's right. In other words, you were put in there for a singular purpose, but during your investigation you found many other things which you felt were worthwhile of further investigation.

MR. LIMBAUGH: Yes, sir.

CHAIRMAN BELOTTI: Thank you, Mr. Limbaugh. Is there anyone else now who desires to testify?

MANNING MOORE, LONG BEACH, CALIFORNIA

I am not representing anyone other than myself. When this investigation was proposed, it was realized it was to be a five-year study. At that time I was President of the Ocean Fish Protective Association, and we met from 8:00 o'clock until 4:00 in the morning reaching this conclusion, that if such an investigation was to be enacted that we would have to wait until the investigation was over to do any legislating. I as an individual feel that this investigation should be continued. We will have to wait until it's over before we do any legislation.

On the second phase of this question on privilege tax, revenue to the State of California from the privilege tax in 1955 was less than \$5,000. There are costs of enforcement by the Department of Fish and Game I do not know about, but I feel most certainly that the kelp business should definitely pay their way along that line and that privilege tax should be increased to where they at least pay the expenses involved to the Department of Fish and Game.

MR. THOMAS: You don't think there should be any legislation until this five-year program is completed?

MR. MOORE: At that board meeting which lasted so long, those points were considered and that was a final conclusion.

MR. ALLEN: Don't you feel, however, Mr. Moore, because of certain aspects of controversy where people only use beach homes or various other things from time to time certain misleading information and some factual other information has caused a great deal of dissention? As soon as we can get facts on progress reports so that we can get the truth, so we can know what we can do about controlling it, don't you think it's worthwhile to release these progress reports as we go along?

MR. MOORE: There are other factors. I was speaking merely of the relationship of fish life to kelp. Now, in the other aspects of it, particularly Santa Monica Bay, there are other aspects which definitely enter into it from other sides of the question.

MR. ALLEN: Well, Mr. Moore, when we're speaking of the Santa Monica Bay, we find around La Jolla and these other places where one company is cutting as contrasted to the other companies, one company uses public relations and disseminates information upon any complaint arising. They have their people in to sit down with the people and go over it, while in the Santa Monica Bay we've not had that aspect of public relations. Isn't that true?

MR. MOORE: I don't feel that I am qualified to answer that

question, sir. I merely have evaluated the information I have--the specifics I can't answer.

CHAIRMAN BELOTTI: Mr. Moore, you are familiar with the operations of the Kelco Company, are you not?

MR. MOORE: Yes, sir.

CHAIRMAN BELOTTI: As a sportsman, one who has been interested in and active with sportsmen's groups for many years, are you satisfied now that the method of harvesting that they follow is beneficial, rather than detrimental to fish life?

MR. MOORE: That is a question which is highly scientific and to which I'll give the best answer I can, sir. If you go into a bed of kelp and harvest the kelp, you free a lot of animal life, plankton and various other things which immediately after they cut kelp will make fish available. Now, would more plankton and animal life be available to drift away from that kelp, if it were not cut. Now, I can't answer specifically that question.

CHAIRMAN BELOTTI: All right. I merely wanted to get a sportsman's reaction to a question of that kind because so far up to the present time the scientific study proves that it is beneficial rather than detrimental. Thank you very much, Mr. Moore.

Now, do we have anyone else?

ROBERT KETCHAM, OCEAN FISH PROTECTIVE ASSOCIATION AND
KETC FISH AND GAME

I would just like to state a few things as far as our organization is concerned. No sportsmen's groups, to the best of my knowledge, introduced either one of these bills we're discussing here today because the final conclusion of the kelp study committee which was set up by the Department of Fish and Game, of which I was an original member, was that we should get this money from the Department of Fish and Game and I had this research program primarily because we felt that

the report that Mr. Thomas referred to was inconclusive, so I concur with Mr. Thomas' opinion. I don't believe this Committee can do very much on that end of the subject until this five-year research program is concluded and we have more facts.

I would like to make one point on it though. I am a bit concerned, in view of the fact that it is sportsmen's money that is primarily being spent on this investigation coming from Fish and Game funds, over the direction of this program and I had hoped that they would adhere to the only fact which we are justified in spending money on, and that is the revision of fish and game through kelp studies. I would like to know that that is the major aspect of this research.

Now, concerning the other bill, AB 3405, which is a privilege tax increase. This scientific investigation, I don't believe, is going to come to any conclusions on that phase of it. It's simply a question of whether or not the kelp cutting companies can pay more to cover the costs of what they harvest from the ocean and cover the costs of these research problems. I think the Committee has a very good reason to take that problem up and discuss very seriously whether they should pay more money for what they're doing. They're two totally unrelated subjects.

CHAIRMAN BELOTTI: Thank you, Mr. Ketcham. Now, if there is no one else who desires to speak on this subject, we will go on to the next. Is there anyone here representing the Los Angeles Fish and Game Commission?

LEE F. PAYNE, MEMBER, LOS ANGELES COUNTY FISH AND GAME
COMMISSION

I have been requested by the Los Angeles County Fish and Game Commission to appear here today to enter our objection to any bill that would put the dove on the protected list. I don't want to go into any great detail, but our reasons are the same as those that you

have heard previously in San Diego.

I simply want to reiterate the stand that we took during the legislative session -- at that time we sent to the Assembly Committee on Fish and Game the reasons we are opposed to such a move and I simply want to reemphasize those reasons.

MR. SCHRADE: Do you have any restrictions in the city or county that prohibit the shooting of firearms or shooting of any animal?

MR. PAYNE: We have County Ordinance 1769, I believe, that restricts most of the county insofar as the discharge of firearms is concerned and it takes in everything except parts of the San Diego mountains and the Antelope valley.

MR. SCHRADE: In other words, that would eliminate the shooting of doves within that area that you describe?

MR. PAYNE: As I recall, that ordinance refers primarily to rifles. I'm not too sure about the shotgun aspect of it.

MR. SCHRADE: Just rifles only?

MR. PAYNE: That's correct.

CHAIRMAN BELOTTI: Thank you very much. The next subject is Item 2, Water Pollution. I'd like to call on Mr. Matthew Eggett.

MATTHEW EGGETT, ASSISTANT EXECUTIVE OFFICER, LOS ANGELES
REGIONAL WATER POLLUTION CONTROL BOARD NO. 4

Mr. Chairman and Members of the Committee, the Los Angeles Board appreciates the privilege of commenting on water quality of the coastal waters in the vicinity of San Pedro as well as the waters of the Los Angeles and Long Beach Harbor. It is our understanding that these are the two areas of your most specific concern on this date.

We'd like first to present a brief history of these areas insofar as water quality is concerned particularly of the Los Angeles and Long Beach Harbors. Concern for this area has been expressed for a considerable period of time. It was ten years ago that the first concerted

effort was made by various interested parties which resulted in the formation of an investigating committee. This committee as we understand had no actual legal authority other than as an investigating committee. It was not until the formation and the activation of the Water Pollution Control Board that we find the actual effect of action taken by governmental agencies acting in concert with the authority to proceed in this fashion.

In 1951 a meeting of all of the interested governmental agencies was conducted and that meeting resulted in the formation of the Los Angeles - Long Beach Harbor Water Pollution Control Committee. The Committee requested the Los Angeles Regional Water Pollution Control Board to sponsor their activities and to chairman this Committee.

Now, directly resulting from these actions in 1952, the Regional Water Pollution Control Board caused this report to be published. It is entitled the "Los Angeles - Long Beach Harbor Pollution Survey". This report contains a detailed study by the State Department of Public Health conducted at the request of the Water Pollution Control Board in accordance with statutes privileging us to do this. It also includes as an appendix a report by the State Department, then Division, of Fish and Game on the type of bottom conditions in Los Angeles-Long Beach Harbor also conducted at the request of the Board. Now, this report more or less defined the conditions as of that time and, as you will appreciate, contains detailed findings, conclusions, and it was felt by all of these agencies, more or less directives as to procedures in an endeavor to achieve the ultimate conditions.

This report was then followed by many meetings of the Los Angeles-Long Beach Harbor Pollution Control Committee and a First Annual Progress Report was published and was widely distributed, so widely distributed that if the Committee desires a copy of this Report, we would have to have one printed up because we are "fresh out" and this

same story applies to the Second Annual Report which we completed.

Now, the Third Annual Report is only now completely backed. This Report will be presented to the Water Pollution Control Board for, we hope, acceptance and then the Third Annual Report which as yet has no official status, will be added to the findings and the rather voluminous studies from this area. This Report brings us through December, 1956. Naturally, the 1957 studies are continuing and we look forward to a Fourth Annual Report.

Now, from the information that was received it was the decision of the Water Pollution Control Board to make a specific study and in January of 1954 the Board adopted in resolution the long-range waste disposal and water quality objectives for the Los Angeles and Long Beach Harbor. These objectives set forth the policy of the state insofar as the beneficial uses, recognized in the Harbor, inner and outer, and the conditions to be maintained if these beneficial uses may be best realized.

Our various reports as we proceed indicate that we come closer to approaching compliance with these objectives. To date, these objectives have not been invariably met. We have not gotten this entirely cleaned up. With the changing economy, the changing activities of the area every problem seems to expand; nevertheless, we can demonstrate with each annual report that the exceptions to the objectives are becoming of less number. We might even say further that although the objectives as such have in certain instances not been met to the beneficial uses as such, they have not been violated. These beneficial uses are being practiced by the people.

Now, the most difficult problem that we encounter, of course, in this area and the entire area of the Water Pollution Control Board's activities is the reconciliation of the major and also the secondary beneficial uses. If it pleases the Committee, I have briefly summarized

here the beneficial uses that the Water Pollution Control Board has enunciated. For the outer harbor these beneficial uses have been shipping, yacht anchorage, bathing, recreation, bait and small fishing. Now, the conditions most favorable for these beneficial uses in the outer harbor are not necessarily the most favorable, but on the contrary, they are unfavorable for many of the inner harbor beneficial uses. Now, the inner harbor beneficial uses are specifically as enunciated by the Board - shipping, yacht anchorage, industrial pooling and cold fish handling. The Board in its review of this matter has been cognizant of the use of the harbor as its name implies.

The primary beneficial use of the inner harbor was found to be for shipping and yacht anchorage and the City of Long Beach and the City of Los Angeles have together spent more than \$150,000,000 to provide these facilities. The Los Angeles Harbor District advises us that the facilities of the West Basin will be quadrupled. The recognition of this, as you can see, was somewhat directive to the definition of the primary beneficial use of the inner harbor. Now in the outer harbor, and in the coastal waters, the protection of fish life becomes, of course, the predominate concern.

As we review the harbor waters, we can see then the activities of the Board and their considerations in that regard. In Santa Monica Bay, a little outside of our mutual interest at the moment, and to be extended to the coastal waters of the Palos Verdes area, there is presently being conducted, and we will continue to conduct, a detailed monitoring program---with this, the request of this office, bio-assays will be conducted through the cooperation of the Department of Fish and Game to determine the significance of conditions in these coastal waters in that they relate to aquatic life. These studies are specific, they are distinct from the wider study being conducted by the Allan Hancock Foundation through the State Water Pollution Control Board.

They are also separate from research work plans now under way by the State Board consultants. Mr. Bonderson, Executive Officer of the State Board, is in the room and can comment in more detail on these wider studies and their applications.

Now, the monitoring program off of the Palos Verdes Coast and the bio-assay is particularly related to the conditions as they may be affected by the discharge of sewage by the Los Angeles County Sanitation Districts off of White Point. This matter has also been thoroughly reviewed by the Board and the Board has prescribed requirements relating to the discharge for the disposal of treated sewage into the Pacific Ocean at White Point by the County Sanitation Districts. The Board in its requirements has set forth the beneficial uses which it recognizes and which in every instance it will protect.

I would like to indicate how the Board has set forth these various beneficial uses, and the fact that they are set forth with the Board's full intent to use every means of protection for the shoreline beaches and for the in-shore waters. Beneficial uses are swimming, wading, surfboarding, skin diving, water skiing, aquaplaning, paddleboarding, pleasure boating, sport fishing, picnicing, sunbathing, seashell collecting, propagation of fish and other aquatic life, commercial fishing, commercial shipping, and industrial water supply. The major beneficial uses now of the off-shore waters are declared to be commercial fishing, commercial shipping, pleasure boating, sport fishing and propagation of fish and other aquatic life. The Board has declared requirements to protect waters immediately adjacent to the outlet for pleasure boating, commercial shipping, sport fishing and commercial fishing. For every area of the Palos Verdes Coast, the Board has declared among others this requirement and this is the most exacting requirement - "No caustic materials or substance shall be discharged to cause concentrations in the receiving waters which would be deleterious to

animal, fish, plant or bird life". The actual mechanics, of course, of achieving these requirements and objectives will be subject to continued review and, if necessary, to reappraisal. The mechanical means are the means to the end as enunciated by the Board.

Now, I will endeavor to answer any questions you may have. Mr. Raymond Hertel who is Senior Water Pollution Control Engineer of the Board is in the room. He has personally directed much of the activities and can answer specific detail.

MR. THOMAS: Have you ever had any complaints filed by the Fish and Game Department with your Board as to the pollution problems in my Assembly District, which is this district here?

MR. EGGETT: The State Department of Fish and Game has not invoked Section 481.5 in the filing of formal complaints with the Water Pollution Control Board; however, where conditions which they felt needed review came up, they were not hesitant at all to call us on the telephone and we have worked with complete cooperation with the State Department of Fish and Game.

MR. THOMAS: I fully understand that you worked very closely, but my question is were there any complaints filed with your Board as to any specific acts of pollution in this area which is Point Fermin, San Pedro Bay?

MR. EGGETT: The legal and the exact answer is no.

MR. THOMAS: Have they ever requested your office for assistance on pollution problems?

MR. EGGETT: Other than telephone conversations, no.

MR. ANDERSON: How much of a staff do you have working on this monitoring activity?

MR. EGGETT: I would have to refer you there to many of the local agencies and I do appreciate your bringing that point up. The activities of the Water Pollution Board in the Los Angeles-Long Beach

area brings in eighteen governmental agencies each of which without any cost to the state conduct the majority of this work. The monitoring program off Palos Verdes Coast line will be done in the greatest amount by the Los Angeles County Sanitation Districts themselves. It is proposed that the State conduct some of that work through the contract with the State Department of Public Health. You see, we have the very fine advantage given to us by legislation that we do not have to maintain our own staff to conduct these studies. Rather than that, we are privileged to call upon State and local agencies to conduct the studies and their very close staffing is available to our request. Now, your question was how many - the answer is I do not know. I would have to refer to the individual agencies to find out from them how many persons they have involved in the study.

MR. ANDERSON: This Sanitation District is monitoring its own treated sewage discharge in the White Point area?

MR. EGGETT: Yes. Mr. Raun and Mr. Bowerman can comment on that much more ably than I.

A. M. RAUN, CHIEF ENGINEER AND GENERAL MANAGER, LOS ANGELES
COUNTY SANITATION DISTRICT

When I heard there was to be this meeting I called the secretary at Sacramento if I were invited; she said yes and I asked her to put us down more for any rebuttal that might be necessary than for the making of a direct statement, and that following Mr. Eggett's very learned discussion. I feel that possibly a statement from the Sanitation Districts might be of importance to you to give you some of the clues that lead you to these conclusions which we have drawn.

May I say that so far as protection of the beaches are concerned, and protection of the shore waters, the Sanitation Districts have been doing that since 1937 without any regulations whatsoever excepting those which are drafted by the State Department of Public Health and

which pertain particularly to the shore waters - to those waters which are considered the bathing waters.

As time has progressed, matters have changed. The flow of treated sewage from the sanitation districts at White Point has increased from about twenty million gallons per day in 1940 to over two hundred million gallons per day as of now. It should be apparent and I think it is apparent to you that for that vast increase, additions at the outfall must necessarily have had to be modified in order that the protection of the shore might be accomplished.

Now also as time has progressed, we find ourselves in more and more perplexing circumstances. The first authority under which we operated for the State Department of Public Health was that we maintain in the shore waters and for a distance off shore reasonably clean and clear waters. We started out with that - there are certain criteria which are established by the state and which we must necessarily have had to follow.

As time went on, however, and as the flow of sewage increased and as the perplexities have increased, the restrictions have become more rigid until today the requirement is that we not only shall protect the shore waters where people swim and have recreational facilities but that we must protect the off-shore surface waters and the off-shore subsurface waters where fishing, aquaplaning, skin diving, and other recreational sports are carried on, where there is indeed a contact with the water by the human body.

Unless the criteria change, unless there is a drastic modification of what the State requires in the offshore waters, we are at this time in the clear and we have been in the clear with our offshore discharge of sewage since our new outfall which extends seaward over eight thousand feet and terminates in a large diffusion structure, some four thousand feet away in 235 feet of water. Since that was

placed in operation we have met the state standards for littoral waters, we have met the Regional Water Pollution Control's specific criteria for the best use of the waters offshore and between the offshore waters and the shore waters. Those data are here; I have them; I know Mr. Eggett is aware of them; he received them weekly from the State Department of Public Health.

May I answer your question also regarding the staff that's required. The sanitary survey of littoral waters or offshore waters is not confined specifically to bacterial population. Bacterial population may be very high and the water otherwise very clear and very acceptable from the standpoint of color, turbidity, grease content, floating materials and things of that kind. The bacterial population is not the only criterion which has to be met. In order that we may meet the others, we have constantly improved our sewage treatment facilities until now, as indicated by the daily record, very little grease is ever in evidence on the shores. We take motion pictures, still pictures in color and there are very few floating contraceptives and contraceptive rings which come ashore from any sewage outfall for two reasons: first because those are very carefully removed at the time with processes which we have had to develop by ourselves; the grease is removed at the plant through a process which we have had to develop and, in addition, we have an offshore patrol boat which daily patrols the offshore waters and picks up anything of that kind that it can discover, with the result that those unsightly things and that unsightly mess is almost completely absent from the shore waters which are used for bathing and fishing. To do that, it is necessary that the district operates its boats and maintains a staff, constantly engaged upon this sampling, of five or six men in addition to the summarizing of the work which is done in the office. I tell you that because Mr. Eggett stated that possibly we would inform you how many

people it would take to do that kind of a job.

MR. ANDERSON: Does the State Public Health Service spot check at any time the activities of your work?

MR. RAUN: They conducted a survey along the shore similar to ours. They do not conduct the offshore work that we are required to do by the local Water Pollution Control Board - that is a weekly conducted check. We're pretty much in agreement at all times.

MRS. DESSIE G. MYERS, LOMITA PROPERTY OWNERS AND REGISTERED
VOTERS ASSOCIATION, INC., LOMITA, CALIF.

We wish to present the following report and recommendation:

The Lomita Property Owners and Registered Voters Inc. has for several years been aware of the increasing pollution of the coastal waters due to increased output of sewage. Some of our members have been, or are now working on, the Hyperian and Lomita Processing Plants and the outfall lines at El Segundo and White's Point.

These men tell of the difficulty of working due to the odor and the oil slick. Bathing and water sports are becoming impossible at most of our local beaches because of such wastes.

Because of the above condition and the need to conserve the millions of gallons of water each day sent into the ocean (according to the Regional Water Pollution Control Board No. 4 File #56-198) at present over 200 million gallons daily and they anticipate over 400 million gallons after 1960.

We ask you to recommend legislation to require all future subdivisions for homes or industrial expansion be required to install complete sewage processing plants - the size of the development which would require such plants to be determined by present and future surveys by competent authorities. These plants should reclaim the waste matter for fertilization and the water be purified to the extent that it can be pumped back into the ground to raise falling water levels.

Provisions should also be included which would compel existing communities to start similar plants and eventually to reach the point where sewage and water are totally reclaimed.

By this means of water conservation Southern California can be assured of plentiful water and our coastal areas once more be fit for recreational purposes. Sincerely yours, Dessie G. Myers.

MR. THOMAS: You represent the property owners group in my District and I want to get your opinion. If a proposition was placed on the ballot creating a District to take care of this situation, which would construct plants and all of this, do you think the property owners

would support it?

MRS. MYERS: I know our group certainly would support it in every way we could. It's the only thing we can do. Our children can't use the beaches as they are now. The Water Pollution Committee seems to think they're usable, but they go down to swim and it's just impossible. A small area along the Redondo Coast doesn't seem to be polluted quite as badly as out here at Cabrillo Beach where the coastal current causes the waste to come in on shore.

MR. THOMAS: So you don't think the property owners would object to a proposition on the ballot, say a \$50,000,000 bond issue of some kind? For treating plants and things of that kind?

MRS. MYERS: Very definitely. I think the bonds would almost be liquidated by the waters being put back to use again. There are two or three others I know that have similar reports.

CHAIRMAN BELOTTI: Thank you, Mrs. Myers.

MRS. MYERS: Dr. Clark is here who represents the community on the pollution of waters in the harbor area and we're associated with her group.

CHAIRMAN BELOTTI: All right. Will Dr. Clark come forward at this time?

DR. FRANCES M. CLARK, CITIZENS' POLLUTION COMMITTEE OF THE
HARBOR AREA

The committee has a letter which we would like to have read into the record in regard to the question of sewage disposal along our coastal areas. The letter is addressed to the Committee:

The Citizens Pollution Committee of the Harbor Area is greatly concerned over the present method used by the coastal communities for handling their sewage. The large outfalls discharging into the coastal waters have made our beaches unsafe for bathing and offshore recreation, and caused a serious deterioration in the marine life.

We recognize the problems inherent in the sewage treatment in the face of the tremendous population growth in the Southern California area, and appreciate the efforts of responsible organizations in

enacting temporary measures to alleviate the situation. That these methods are inadequate is pointed up by the fact that beaches are continuously near the danger point of contamination, and offshore waters are not conducive to recreation.

We recommend that your committee propose that legislation be enacted to require that individual complete treatment plants be a requirement in planning further subdivisions and establishing major industries. We further recommend that a long range plan be instigated to provide the gradual integration of present communities into unitized, complete treatment plants rather than the expansion of the collective systems that are presently utilized whereby all sewage products are discharged into the ocean.

Such complete treatment plants will provide both a source of income from the sale of processed solids, and more important, a source of badly needed fresh water. The final result would be the restoration of our ocean waters to conditions suitable for recreation and healthful growth of marine life.

The Citizens Pollution Committee of the Harbor Area is composed of interested citizens in the harbor district, and representatives from the following organizations:

Lomita Property Owners and Registered Voters, Inc.
Exchange Club, San Pedro
Y. W. C. A.
University Women's Club
I.L.W.U. Fishermen's Union Local 33
SPUR Council
Harbor Area Democrats
San Pedro Tritons
Chamber of Commerce
Seroptimists International, Harbor District
U.A.W. - C.I.O. Ford Local 406
Fishermen's Co-op. Association
Retail Clerks Union, Local 905
Kiwanis, San Pedro

Very truly yours,

Edgar F. Gaudette, Jr.

MR. THOMAS: Dr. Clark, I will ask you the same question as I asked Mrs. Myers. Will the property owners support the proposition on the ballot if this Committee would consider such a matter? Would the property owners support any tax assessments for purposes of constructing treatment plants?

DR. CLARK: Naturally I cannot speak for all the property owners in the Harbor Area. We appreciate that it is going to be a very expensive proposition, a long term program, it cannot be accomplished

inside of many years, but our group feels that it would be a constructive step and that we can't begin too soon to work toward this treatment of our sewage as it would be treated in inland areas, not considering finally putting any of the by-products of our civilization in the ocean.

MR. THOMAS: Have you any suggestions as to methods of financing any program to correct this situation?

DR. CLARK: Well, of course the boundaries of our immediate objective do not include communities that could pay the bill. Another method would be a sewage tax to be paid by the people just as we pay for our water and for our other utilities.

CHAIRMAN BELOTTI: May I say for the benefit of the group that you represent, Dr. Clark, that in Mr. Thomas you have a representative in the Assembly who never gives up so if there's any benefit to be had by any proposal, why he's in there to try to get them for you.

DR. CLARK: We certainly appreciate that.

MR. FREW: Being on the Fish and Game Committee, we're naturally interested in the marine life and you made the statement that you thought the sewage outfall was injuring marine life. Have you definitely established that fact?

DR. CLARK: The information that is available has been gathered by the Fish and Game Committee and it would be better for them to present it direct rather than for me to give it to you second hand.

MR. FREW: I was talking to a fisherman last night and he thought that the fish life was benefitted somewhat by this sewer outfall. He thought that some fish were even attracted into the area.

DR. CLARK: Well, that is a long and controversial subject and again I would prefer to refer it to the Department of Fish and Game.

CHAIRMAN BELOTTI: Thank you very much. Now, before we call the next witness, I'd like to announce that I'm very pleased to see that the Vice-chairman of this Committee, Assemblywoman Pauline Davis, has

arrived and I'd like to present her to you.

Mr. Limbaugh, would you like to come up at this time?

MR. LIMBAUGH: These observations are my own observations and any conclusions I draw are from these observations and the interpretation of other people's observations. I dived at White Point to investigate the effects of the effluent on marine life in that area. I was familiar with the area and have been diving in this area for 21 years.

The kelp beds which were formerly there are no longer there. These kelp beds have been receding both north and south of the outfall. The kelp harvest from that area has diminished and is a matter of public record. The other marine plants on which fishes are dependent, abalone are dependent, and upon which lobster are indirectly dependent, are absent from the immediate area of the outfall. This is a geographical area, located at a depth where you would expect to find a great variety of plants.

In-shore, there are a few straggly plants, much less than those which you would expect to find. Many of the marine animals are missing, many of the fishes are missing. There are a few abalone in the area but they are sick and old, their shells crumbly and there is no food available for most of them.

I would like to explain to you what happens when this effluent enters the ocean as I see it. These observations were made on the shorter outfall which I understand is no longer in operation; however, some of these things I've seen in other outfalls as well, so I feel that they are fairly standard. The effluent that comes out of these outfalls is lighter than seawater due to the presence of fresh water. It floats to the surface, in very direct plumes from each of the little diffuser holes along the pipe so that the water below is relatively clear. At the surface you can find a black, very smelly bubble and after that dive I took many, many showers and every time I think about

it, I want to take another shower.

That area at the surface with the dark, lighter mass is almost always brought shoreward by the prevailing surface current which is under the influence of the winds. During this period a lot of solid material, either due to the fact that it has lost its vertical velocity or because it is flocculating, settles back down to the bottom. On the bottom these particles are not as dense as sand and in the shallower water where the audible velocities of the waves are faster shoreward than they are seaward, these particles are again transported shoreward so that they join up again with the surface effluent in the in-shore areas.

Now below the outfall, there are a number of organisms which are very prolific in this area and they seem to find a ready supply of food and a favorable environment. These are not, for the most part, economically important organisms. The water on the surface is very dirty and doesn't make a very favorable place for skin divers to operate. The areas where pipes have been placed are part of the very limited area that skin divers have for recreation. These rocky zones are the most productive as far as economically important marine organisms are concerned, and when you pass the pipe through this area, there is always the danger of a break. If a break isn't treated promptly, the slug effect from the discharge might possibly destroy that area so that it would take many, many years to recover. Another possible way to get a slug effect in such an area is to have a calm period off-shore where there is very little current and this water piles up in a ball or mass and then a change in surface current occurs which would bring this to shore all in one bunch. Average conditions mean very little. It is these slug effects that are important in marine life in that they build up a heavy concentration at one time. It's like a forest fire--once you've killed the trees, they don't recover. Just because of the

average conditions you might think there's no fire there.

MR. THOMAS: Would I be correct in stating that the outfall sewage is killing the kelp, destroying our abalones and lobsters off the Point Fermin area or White Point area? Is that what your statement says?

MR. LIMBAUGH: Directly or indirectly, I'm not sure how, it's my opinion that it is, from the evidence that I have seen, killing the kelp, that it is killing indirectly the abalones and the fish. Now, we actually found dead fish on the bottom in the immediate vicinity of the outfall. We've photographed them and they are in a publication.

MR. THOMAS: How long a research period did you.....(interposed)

MR. LIMBAUGH: This was a very short period; unfortunately there wasn't much in the way of finances for this. I forget the exact number of days of diving on this area but I have dived in other areas where.....(interposed)

MR. THOMAS: You're a scientist now and I'm trying to find out how did you get to that conclusion that the outfall sewage is killing the kelp and fish? Did you take some laboratory tests? Did you test the water? How did you go about getting to your conclusions?

MR. LIMBAUGH: Well, I'll draw an analogy if I may to make it simpler for you. If you walked in an area that's recently been burned by a fire, it's clearly evident that there's been a forest fire.

MR. THOMAS: Disappearance of kelp could be caused by something else other than sewage, couldn't it?

MR. LIMBAUGH: Yes, but the probability becomes less when you find that it disappears in both directions and that there are probably several hundred species of plants also disappearing in both directions from the outfall. There is also the fact that kelp has disappeared in the Santa Barbara Bay area in the past. The other outfall was the second largest - maybe the largest discharge area.

MR. THOMAS: I'm very much interested in this headline in the

MIRROR NEWS yesterday: "Sewer Not Major Sea Pollution Cause, Scientists Say" -- that's from the Hancock Foundation. This seems to be conflicting. We can't find two scientists who agree.

MR. LIMBAUGH: I think you have to concede that the ocean is a great body of water if you want to interpret that statement correctly. This little pollution problem doesn't affect Tahiti very much and this little tiny area involved that's offshore is a very small area on which a great number of people are dependent for recreation and also a few commercial people are interested in this area.

I have dived on small sewers' outfalls when we used to have multiple outfalls in La Jolla and also at Pacific Grove. It seemed that these small outfalls locally may have even benefitted the fish but this was before the time of detergents and whether or not they have any effect it's hard to say.

MR. THOMAS: Would you say the outfall sewer has caused the disappearance of some of our fish out here or have you come to any conclusion? In other words, you're not blaming the commercial fishermen for overfishing?

MR. LIMBAUGH: I don't believe that the outfall has caused the disappearance of all of our fishes. There are still fishes on hand.

MR. THOMAS: Well, you said in your statement that fish were missing and lobsters were.....(interposed)

MR. LIMBAUGH: A lot of fish are missing. A lot of species of fishes are missing that should be there. There are fishes there.

MR. THOMAS: And the outfall sewer is one of the contributing causes?

MR. LIMBAUGH: Yes. That's my opinion.

MR. SCHRADE: Mr. Limbaugh, you have mentioned that the outfall has affected kelp and you speak of the immediate area--what does that mean in feet or yards or miles?

MR. LIMBAUGH: Let's take the kelp. Now, our observations were in the immediate vicinity of the outfall; however, the kelp is either entirely gone or so thin that it is not noticeable from the surface for several miles along the shore.

MR. SCHRADE: And does that apply also to fish and shell fish?

MR. LIMBAUGH: I would presume from the evidence that it would affect them to a lesser degree the further away you were from the outfall. Just exactly what this gradient is, I'm not sure.

MR. SCHRADE: But you would say it affects it for several miles.

MR. LIMBAUGH: I might state here that there might be another effect which would affect the people of the entire state. Many of our coastal fishes, I believe, move up and down the shoreline. Some fishes do not like the smell of certain substances and react to them and if they are forced to go through these areas, they might give up using this coastal migratory route. This might be why the fishing is much better just south of San Diego than it is just north of Los Angeles.

MR. ALLEN: Mr. Limbaugh, you heard the testimony of Colonel Todd the other day when he said that due to some unforeseen circumstances, elements or otherwise, there are ideal or desolate places where the kelp has gone and the natural protection is gone. What do you think of his approach of sinking of some of these crafts and other possibilities of artificial shelters.

MR. LIMBAUGH: You mean in connection with pollution?

MR. ALLEN: No. This is out of polluted areas or where there have been unforeseen circumstances, for instance.

MR. LIMBAUGH: I feel that this is a very, very wise move that we should take, at least begin our steps at ocean improvement to increase our natural resources.

MR. ALLEN: You related to me on this investigation at the school some of your observations on oil drums and various other cans that have

gone over the side of a vessel or been lost and that there was a great deal of presence of fish in those areas, is that correct?

MR. LIMBAUGH: That's right. On any object on the bottom, in an otherwise barren area which we frequently refer to as deserts, increases both the number of sand-dwelling organisms and reef-dwelling organisms in that area. Any wreck, as any diver or fisherman will recognize, is an excellent place to dive or fish. There is a large number of fishes resting there and the presence of a single bucket or sometimes even a tin can on the bottom may mean the presence of a halibut nearby or a reef fish taking refuge in that little object.

MR. ALLEN: Now, getting back to the pollution situation. Isn't it true to a certain degree that even fresh, pure water will act in some areas as a pollutant?

MR. LIMBAUGH: Yes.

MR. ALLEN: And that some marine life itself will not react, will be driven from the area where fresh water itself is discharged.

MR. LIMBAUGH: Yes. Pure fresh water is toxic to some organisms.

MR. ALLEN: You speak of detergents. I am sorry that I was out of the room when Dr. Raun was on, I wanted to ask him specifically that question. I'm on another committee that has to deal with this pollution situation. Do detergents have a marked effect to drive away or.....(interposed)

MR. LIMBAUGH: I didn't say that. I just said that the observations on these small outfalls were made before the use of detergents. These were the small outfalls in Pacific Grove and La Jolla. They have removed these small outfalls at La Jolla now and I have not dived at Pacific Grove since they've had detergents, but I do not know whether or not they've had any effect.

HERBERT C. DAVIS, CALIFORNIA FISH CANNERS ASSOCIATION

We in the fishing industry have a good deal of interest in this

matter of pollution and we have a great interest with all other industries in the state as to how the problem might be solved, if and when a problem develops.

It occurs to me that the various suggestions made here today for handling this problem justify our considering a matter that Mr. Allen just mentioned. You, Mr. Chairman, and you, Mr. Allen, are both members of a special committee which is set up by the Legislature to deal solely with this problem of pollution, particularly with respect to the examination of all of the existing laws of the state and perhaps, I hope, an examination of the public policy of the state or the absence of public policy. I think nearly everything that has come before you today falls in that field.

It's taken us about a hundred years to develop some of these problems that we have with us. During that time we have developed a terrific population in California and the problems may not be solved in any simple manner. I simply urge upon this Committee that while your interests are especially that of the effects on fish life, you take cognizance of the fact that there is a specific committee of which you gentlemen are members, to deal with this thing on an overall basis. I will hope that they do not come up with some conflicting recommendations from one committee to another because I believe that the principal problems that are going to have to be solved by the Legislature are matters of public policy. Are we going to abandon the philosophy of centralized sewage collection and the use of the Pacific Ocean as a point of waste discharge, or will we adopt a public policy of decentralized systems as has been suggested? Are we going to adopt the public policy which has not been done in most cases as to whether or not industrial waste shall be collected by and included in the sewage systems of the State or whether they must be treated and handled separately and cannot be included in the industrial waste?

In the Los Angeles Sanitation District system, under Mr. Raun, the policy is to accept industrial waste insofar as the capacity of the system to handle and treat is concerned. The Los Angeles system on the other hand has relatively little industrial waste entering into it. As long as we are having a rather thorough overhauling of the general policy of the state, I hope that the committee keeps in mind that this should be pretty much integrated so you are not dishing it out with your right hand and then throwing it back with your left.

CHAIRMAN BELOTTI: Water pollution is on the agenda specifically at the request of the local representative, Mr. Thomas. We realize we have other committees that are working on the specific problem of water pollution; however, let's go into it as far as we may at this time insofar as it applies to the effect on fish.

W. T. SHANNON, DEPUTY DIRECTOR, DEPARTMENT OF FISH AND GAME

The Department is very much concerned with the pollution in the state. Our increasing population in California results in more demands to dump sewage, industrial waste and other undesirable substances into our streams, rivers, lakes and ocean waters. This, of course, has a direct effect on our fisheries and aquatic resources.

We feel that it is highly desirable that these waters be kept as clean as possible, not only for future generations, but for our present generation. We have a great question in our mind as to whether it is advisable to set great areas of ocean waters or portions of our rivers aside for waste disposal areas. Industry has the know-how with their engineers to purify these effluents. Perhaps we should consider not dumping anything into our waters which seriously affects recreational potential, fishing resources and other highly desirable uses. This, of course, would cost more money but perhaps it is worth it to keep our streams and ocean waters clean.

I'd like to clarify a statement that was made by Mr. Eggett in

relation to a question by Mr. Thomas. As I remember, Mr. Thomas asked him whether or not the Department ever filed any complaint with the Regional Water Pollution Board concerning any pollution in his district. I'd like to clarify that a little bit. I think Mr. Eggett replied with the thought in mind as to whether or not we had filed a formal legal complaint in accord with Section 481.5 of the Fish and Game Code and he answered "no", and I think he is correct. However, we have had a lot of contact with the Board and Board members; we have attended Board meetings; we have had telephone and personal contacts; we have had correspondence from the Director of the Regional Board and the Pollution Committee to the effect that we are not satisfied with the requirements that have been set up for the discharges at White Point. We are not satisfied with the objectives that have been set at the outer harbor at San Pedro. We do not feel that these objectives are being met and we have pointed that out to the Board in correspondence. We work closely with the Board and try to iron these things out but we do not feel that our fish life is being adequately protected in this area under present conditions.

MR. THOMAS: Under Section 481.5, hasn't the Fish and Game Department sufficient powers to take care of your problem?

MR. SHANNON: 481.5, or perhaps it's the next section, Mr. Thomas, says that whenever a chronic and continuing condition of pollution exists, then we report it to the Board for their action.

MR. THOMAS: Have you done that?

MR. SHANNON: We haven't done that. That's a legal formal complaint that I mentioned. We have not done that under 481.5.

MR. THOMAS: Why haven't you done it?

MR. SHANNON: Because we have been trying to get proof as best we can and it's a difficult situation to get proof that will back up our claim that this chronic and continuing pollution exists. Now, we

are accumulating information and Mr. Limbaugh pointed out some of the things that we're working on. It is a question of time before we feel we have sufficient proof; but in many cases the water gets bad, the fish move out and it is very difficult to prove what substances and at what times you actually saw them.

MR. THOMAS: So you do admit that you have sufficient powers in the Code?

MR. SHANNON: No, we don't. Now, we don't admit that, sir. In relation to certain situations we do not feel that we have enough power. In relation to this, perhaps we have. We have to wait, as we lodge the formal complaint, and see what happens as to whether or not it will be effective in that case.

MR. THOMAS: Has the Director of Fish and Game Department notified anyone in the Department as to what additional powers he would like to have?

MR. SHANNON: We are considering not necessarily what additional powers we should have, but as Mr. Davis said in relation to other committees, we're considering recommendations as to how the present law might be strengthened. We're not prepared to make those recommendations at this time.

MR. ALLEN: Mr. Shannon, as far as the City of Los Angeles is concerned, hasn't Fish and Game, along with the Regional Water Pollution Control Board and the State Health Department, made certain findings that are still before the Superior Court whereby you people have had your complaints and the city council itself, right at the present time, and the present mayor, are still under the mantle of contempt proceedings before Judge Vicker's court?

MR. SHANNON: There is a case existing, but I can't point out all the details.

MR. ANDERSON: Mr. Raun has stated that his county sanitation

district has complied with the standards set up for White Point area by the State Department of Public Health. You are not satisfied with those requirements. Have you discussed those standards with the Department?

MR. SHANNON: We've appeared before the Board with relation to White Point and have discussed it with Board Members. It's a matter of how much emphasis is put on certain things. In other words, we believe that the requirements that are set up in that area are not sufficient to protect our aquatic resources; however, they have been adopted, I understand, by the Board but these requirements are subject to review. We do not feel that the door is closed. We would like to continue this discussion and arrive at better requirements insofar as fish life is concerned.

MR. ANDERSON: Does the State Department of Public Health have the authority to change those requirements?

MR. SHANNON: No, it's the Regional Water Pollution Control Board that sets the requirements and, of course, those are set taking into account the recommendations of Public Health, of Fish and Game, and other agencies who are interested. They are supposed to consider what are the beneficial uses and then set up requirements to protect those beneficial uses.

CHAIRMAN BELOTTI: Thank you, Mr. Shannon. We stand at recess until 1:45.

(NOON RECESS)

CHAIRMAN BELOTTI: The meeting will come to order. I would like to call on Mr. Bonderson to briefly summarize the pollution subject in connection with the work that the Board is doing.

PAUL BONDERSON, EXECUTIVE OFFICER, STATE WATER POLLUTION
CONTROL BOARD

Mr. Belotti, Members of the Committee, I think it would be well

if this Committee were aware of the State Board's researching problems in the field of ocean disposal of sewage, and to introduce this subject I'd like to point out in the field of sanitary engineering we have a pretty good knowledge, much work has been done on fresh water problems. However, when you come to salt water disposal of sewage we have a fair knowledge of the Public Health aspects involved and the nuisance problems that result from the disposal of sewage to oceans. We have little or no information as it relates to the overall resources.

The question has been raised here in California as to what adverse effects ocean disposal of sewage is having on our marine resources. This question, as far as I know, has not been raised in other parts of the country so California has had to pioneer in this particular field. Since there has been this question raised in California, the State Board has embarked upon a very extensive research program which we hope in a number of years will give us some of the answers to the questions that were raised this morning.

I hate to bring up the dollar sign, but it is a common denominator and I think that we all understand, and it will demonstrate to you people the expense and the importance the State Water Pollution Control Board attaches to this problem. We are undertaking a research program at the level of about two hundred and fifty thousand dollars (\$250,000) a year and it's expected that this will carry on for at least four years. The program was started last November with contracts with the Hancock Foundation here in Southern California at the level of a hundred thousand dollars (\$100,000) for the first eight months. That program is being carried on during the current fiscal year at a level of a hundred and thirty-eight thousand dollars (\$138,000) of state funds and we hope that this program is supplemented to the extent of about twenty thousand dollars (\$20,000) per year from the National Institute of Health grant. We are now negotiating a contract with

Scripps for studying pollution effects upon kelp at the level of twenty thousand dollars (\$20,000) a year and this has been carried on for about four years.

We have a Board of Consultants--three people, I would say, the most outstanding engineering scientists--that we have in California to lead us and guide us in this new undertaking. We are negotiating a contract with Humboldt State College for the rest of the current fiscal year for a study that will be at the level of about eleven thousand dollars (\$11,000) a year and in future years about twenty thousand dollars (\$20,000) a year. We are negotiating a contract with the University of Southern California for a study of oily substances on the beaches and near-shore waters and this will be carried on at the level of about twenty-five thousand dollars (\$25,000) a year. That will only be a year-long study.

That, in a nutshell, is our research program. We hope that in about four years we will be able to answer some of the questions that have been posed this morning.

MR. ANDERSON: Did you state that you're not in a position yet to say that pollution is bad for marine resources? Why do we have this publicity like Mr. Thomas brought out this morning?

MR. BONDERSON: Well, it's recognized that in immediate vicinities of some outfalls there is some effect--I won't say it's adverse--some effect upon the marine ecology. It changes the environment generally speaking so that some organisms may disappear but others may appear in much greater abundance. It is in the immediate vicinity of the outfall that its overall long-range effect over a sizable or significant area has never been, as far as I'm concerned, exclusively determined. That's why we are embarking upon this approximately a million dollar research program to try to find some of these answers.

MRS. DAVIS: Do you feel as the law is written today that you have adequate enforcing power to actually do the job that you think will be necessary after your studies and information are before you so that you can actually judge what should be done?

MR. BONDERSON: Mrs. Davis, that question was asked by the Meyers Committee to a number of people who appeared at that particular hearing and it is my feeling that the seven years of operating records that we have behind us in this program would indicate that we can cope with the pollution problem of California with the present legislation.

MRS. DAVIS: Then, in other words, you're saying there isn't any new legislation needed at all or any correction of the present law as it is written today?

MR. BONDERSON: I wouldn't go so far as to say that. It may be determined by your Committee that changes are needed, but my feeling is we can cope with the problem with existing legislation.

MRS. DAVIS: Is this your own opinion or is it the opinion of the State Board?

MR. BONDERSON: This is my opinion, not the State Board's opinion.

MR. ALLEN: Mr. Bonderson, in this overall program I understand that you're taking practically every factor into this situation. We heard the testimony from time to time, not only on this Committee but in local committees, about the tremendous problems of our sewage disposal plants with respect to the effects of detergents. They delay the digestive process and bring certain residual deposits and effluent into the water that make it almost impossible to be clean. Have you arrived at any conclusion in that factor yet?

MR. BONDERSON: The advent of the use of detergents has posed new problems in waste water disposal. Our particular research program has not singled out that particular factor yet; however, that substance is being studied thoroughly by other people throughout the entire

country and not just here in California.

MR. ALLEN: But it is a definite factor in the processing and it is the added cost.

MR. BONDERSON: It has complicated and added another pollutant to existing deposits.

MR. ALLEN: So we can't ignore it?

MR. BONDERSON: We cannot.

MR. ALLEN: It's an economic situation that must be taken into consideration and dealt with.

MR. BONDERSON: Absolutely.

CLARENCE C. JONES, PORTUGUESE BEND CLUB AND HOME OWNERS ASSN., INC.
(Also speaking for Robert Thatcher of the Portuguese Bend Home
Owners Assn.)

Most of the people who have lived in this area, who have moved into this Portuguese Bend area, the Palos Verdes area and other coastal areas have done so for reasons of recreation and the beauty the area offers. I have lived here for most of my life and I fish. I have pursued aquatic sports in this area for a number of years as have most of my neighbors. This has been probably one of the most beautiful areas along the coast. That is the reason we came here.

For a period of years we have noticed the gradual decline in the fishing, the amount of fish, the health of the fish. Also most of us are boat owners and we spend a lot of time out here in the ocean in our boats and swimming. I'd say about two out of five times that I am out in my boat I've seen sewage and evidence of sewage floating on the surface. Skin diving is not what it used to be. I'm not speaking to recall old times or anything like that. It's simply that the fish are not as prevalent as they were and the shell fish are not as prevalent as they were.

We feel that legislation should be enacted to somehow look into the matter more thoroughly. What we have to recommend specifically

is that we want complete sewage treatment. We think that the sewage treatment should be by each new housing project or each new industry, that each industry should take care of its own. You might propose something in the way of a tax to help pay for this. I'm sure that speaking for most of the home owners we would be more than happy to pay our share of this sort of treatment, whatever is necessary.

CHAIRMAN BELOTTI: Mr. Jones, do you concur in the statements presented by Mr. Limbaugh that the dumping of this sewage into the bay is injurious to the fish?

MR. JONES: I'm not speaking as a scientist--I'm speaking from personal observation and I think yes, it is detrimental to the fish.

CARROL M. WAKEMAN, ENGINEER, LOS ANGELES HARBOR DEPARTMENT

It's unfortunate that the interests of one group may at times not be compatible with that of another. In the case of the City of Los Angeles Harbor Department our interest lies not entirely in pure water. There are certain conditions of water pollution which are favorable to the interests of the harbor engineers. It so happens that a certain form of marine life, the boring teredo, attacks harbor installations, the pilings. The City of Los Angeles has about 40,000 creosoted piles in their harbor. At the present time we make an annual replacement of some 150 to 200 piles per year at a cost of about \$375.00 to \$400.00 a piece due to the depredations of marine growth.

Now the more pollution that we have in the harbor the fewer replacements need to be made. I would like to point out to the Committee that there is a great deal of money spent each year on having pure water. It also saves the boat owners in the harbor. Where there is pollution they know that they do not have to paint their boats as frequently, and barnacles and fouling mechanisms are nonexistent in some parts of the harbor. This is very important to us. It's unfortunate that we have to have impure water rather than pure water.

MR. THOMAS: Am I right in assuming that the Harbor Department wants pollution?

MR. WAKEMAN: We would like limited pollution, yes.

MR. THOMAS: In other words you don't care about the oil spills and all that.....(interposed)

MR. WAKEMAN: Yes, very much so. That's why I say limited pollution. We don't want any free oil. We don't want objectionable floating matter but we do want the types of pollution which limit the oxygen content in the harbor waters. We would be very happy with that oxygen content of somewhere around two parts a million. Now it's around seven and a half to eight.

MR. THOMAS: The Harbor Department enforces all the pollution rules, doesn't it?

MR. WAKEMAN: No. We do not.

MR. THOMAS: You're the first person I've ever heard in all my life who stated you like pollution.

MR. WAKEMAN: It's a matter of dollars and cents - economics.

CHAIRMAN BELOTTI: Thank you, Mr. Wakeman.

HOMER LOCKWOOD, PRESIDENT, CALIFORNIA COUNCIL OF DIVING CLUBS

You gentlemen have heard quite a lot of testimony this morning and afternoon from experts and scientists, from the Department of Fish and Game, and from property owners. I'd like to speak to you a little bit in regard to people who use the water.

I am a skin diver and we're the ones that are, I think, most primarily interested in seeing good fishing waters on White Point and other areas, pure enough so that we do not have to risk our health too seriously. We are highly disturbed at the attempt to whitewash by certain groups the fact this water is not contaminated and frankly, gentlemen, you don't have to know what a decotoloid is when you're in the water and you see it floating, you know that, you know it's there,

you don't need a five years' study to prove to your satisfaction that it is contaminated. And we feel that immediate steps should be taken to very stringently curtail the extent of the pollution that we feel very strongly is going on. I would like to introduce for one moment Mr. Charles Blakeslee who, with his family, is also a user of the waters.

CHARLES BLAKESLEE, ASSOCIATE EDITOR OF THE SKIN DIVER MAGAZINE

Mr. Chairman, Ladies and Gentlemen, our magazine has a regular funnel of information coming in from time to time. Our circulation covers the United States generally but we have a very large circulation in Southern California. Recently we have had numerous pictures come in of fishes with abscesses and so on. Now they could be caused from maybe a wound or an abrasion or something of that nature, and in the few instances where they brought the pictures in, we felt it would have been wonderful if they could have saved the fish for examination to see if it was a virus or some organism that might have been traced back to sewage. Then from personal observation at Moss Beach, better known as the Sand Dunes just below Malibu Cove, about two years ago my family and I moved down on the beach and the children ran up and down and came back with contraceptive tops by the hundred on sticks. and, of course, it was easy to see what they were. In walking up and down in about the distance of one block, there were literally thousands of them. Now where did they come from? Did they come from White Point or up north? It is evident that they come in; it's evident that the sand has an odor; it's evident that the water isn't clear like it used to be; it's evident that there is dying growth on the beach; lobsters have been observed to be sick. On your bird incident here recently, I called the Fish and Game and they were examining the birds. Could they have been picking up something from all this sewage? They died by the thousands, literally thousands, up and down the coast as far south in my own personal observation as Laguna and all along the Palos

Verdes area. Now, birds travel and fly up and down the coast and they contain large quantities of fish. Could they possibly be contaminated from small fish or the shellfish that they feed on? These questions are in our minds and we'd like to be able to answer them. We aren't scientists but we're going to have to appeal to these people to find out why. I think the eyes of all the fishing industry are the skin divers and they'd be happy to cooperate in research in every way they can.

MR. THOMAS: When you asked the Fish and Game Department about the seagulls, what did they say?

MR. BLAKESLEE: They were trying to run tests at that time to find out what the organism was. They didn't know.

MR. THOMAS: They didn't find out?

MR. BLAKESLEE: They didn't even know at that time. That was when we had the first calls when it was first evident. Maybe they've found out something since then.

MR. THOMAS: Well, last June there was ten thousand fish picked up in the bay area - dead fish - striped bass, salmon. The Fish and Game Department hasn't found out yet what killed the fish last June and I don't think you're going to find out about the seagulls either. I don't think it can be determined what killed them. I don't know, maybe the Department has the answer, maybe they found out since last June what killed the fish.

CHAIRMAN BELOTTI: The next subject is commercial fisheries.

MR. THOMAS: Of all of these bills that have been presented to our Committee--preventing the taking of barracuda, sea bass, mackerel, spiny lobsters, yellowtail, anchovies--I understand all of those bills were sponsored by the O.F.P.A. at the last session of the Legislature. If a spokesman is here I would like to have him present his case on why they introduced the bills and then we'll hear from the opposition.

MR. KETCHAM: Our organization did sponsor all of this legislation that you mentioned, I believe, with the exception of spiny lobsters. Rather than go into the jillions of details and scientific facts which we believe are involved in all of these species, I understand that our basic reports were read into the records at San Diego yesterday. Is that correct?

CHAIRMAN BELOTTI: They're in the record by Mr. Rossez.

MR. KETCHAM: Mr. Rossez was not able to be here today so I am representing him. I think it's a very good idea to skip all the details and save a lot of time. The veteran members of the Committee have all heard these things many, many times in the past. The commercial industry says one thing about a species. We say another - the general gist of these hearings has always been this in the past. Neither can prove his point so then we call on the Department of Fish and Game, usually in the person of Mr. Croker in the hopes of getting some scientific proof on these species and Mr. Croker unfortunately is unable to give anything factual. I don't think he ever will in a thousand years in all honesty because, in my opinion as a great many others, the resource involved, either what's left of it here in Southern California commercially or from a sport fishing point of view, would never be worth the amount of money it would take to get the scientific facts that we would need to make any conclusions of a scientific nature. Even the Federal Government and the United Nations haven't even begun to scratch the surface on the two scientific facts of pelagic fishes such as albacore, yellowtail and tuna which are tagged here and three months later picked up off Japan someplace. In other words, my point is I hope we don't have to go into that same old routine of them stating their facts and us stating ours and hope to get any conclusive facts from the Department of Fish and Game because we won't get them.

I would like to just briefly discuss two of the species involved here which we are most concerned with. Number one is the anchovy. Very briefly we are deeply concerned about that. As most of you know, we had legislation protecting anchovies at the 1955 session of the Legislature. We got it primarily because we know that without anchovies for bait the entire sport fishing industry will be wiped out right now. That's all we have left. We have no sardines which were our only other source of bait and without protection of anchovies, we're out of business. There are a lot of reasons to believe that this anchovy population is in even more serious state right now than it was when the legislation was originally passed. Bait has been hauled from San Pedro Harbor consistently this year as far as San Diego to supply those boats down there. Pinheads, which is the name of the day for small anchovies, have been the order of the day here all year. Without going into any further details I do not honestly believe that there is any one in the commercial fishing industry, around the Legislature or anywhere else, would want to do anything to completely wipe out the sport fishing industry. I repeat again that there is nothing left unless we have anchovies for bait and I feel that it was a very great tragedy that this legislation was not continued at the last session of the Legislature.

The other species I would like to discuss is the yellowtail. I feel quite certain that Mr. Thomas or someone is going to quote the figures on the remarkable yellowtail fishing that we have had this year, a very fine year. It's the best we've had in 25 years. So, in anticipation of your question, I'll give you my answers now as to why this yellowtail fishing has been so good. First of all, I will steal a theory which I have heard many times reported here by people like my old friends, John Regal and Herb Davis in the past--the theory of warm water currents. I sincerely believe the fact that we've had an

average of ten to twelve degrees warmer water in our area this year has had an important effect on that. There is some scientific background to that because we did spend quite a bit of federal money that we received through Dingell-Johnson funds on the yellowtail research program, the only one we ever had. It was pretty definitely established in everyone's opinion and frankly, it changed my mind on the subject that the major yellowtail habitat is far below the border. When we have warmer water, it is logical to assume that they do come up here. I believe that the yellowtail recovery did start some ten to twelve years ago, I'm not certain of the exact date, when a twenty-eight inch limitation was put on sale of commercial yellowtail. It was long before I was even involved in this but I believe the recovery did start there. Most of this catch I think will be reflected around the Coronado Islands south of San Diego where most of the fish are taken in sport fish catches. I must say I do think that the policy of the Mexican Government about eight years ago of using some of our war surplus gun boats to go into the Coronado Islands and stop all commercial fishing in that area has had some effect on the increase of yellowtail.

But most of all, gentlemen, I feel that the legislation that we passed in the 1955 session which definitely limited the take of yellowtail--not too drastically, in fact, not any more than was taken for the previous ten years--had a very great effect on the increase of our yellowtail catch this year. Those are the known factors which I believe have had as much as anything to do with the catch of yellowtail. Whether it is so good now that we don't need any further protection on them---it's a sad thing that that law is out now as of thirty days ago and I think it's quite logical to assume that next year we may start to have the declining figures which I must remind you were in effect for twenty years previous to this year which we do not want to see.

I would like to conclude with the following suggestions to this Committee which our organization feels. As you know, I think we sincerely try in these Interim Committee hearings, to keep the tremendous hassles and rhubarbs out of Sacramento as much as we can. Anything we can resolve or do in advance of these sessions in respect to these bills is constructive. Four years ago, the conclusions of the Interim Committee were to set up an advisory committee made up of all the parties interested in this problem and thus sit down where we could hassle it out and to the best of our ability solve our problems before we came to Sacramento. For the first time in the history of these controversies, something truly constructive, in my opinion and in the opinion of our organization, resulted. We did agree on several major things. We did not get everything we wanted--the commercial industry did not get everything they wanted, but we did agree on the major basic problems. We came to Sacramento and you veteran members of the Committee will remember that the hassles that year were much less than any time in the past. There were one or two minor problems brought up primarily due to the fact that one or two elements were left off this advisory committee which is a natural mistake. We did come up with this anchovy and yellowtail protection which I feel was the greatest thing that ever happened for the protection of our natural resources out here. It might have even solved the entire problem.

At the conclusion of last year's Interim sessions, if you will remember, we decided that because of the success of this previous one, it would be wise to set up another such committee, which we did. Unfortunately, this committee did not work. For the constructive benefit of the Committee, I would like to give you my opinions of why the first committee did work and the second committee did not. I believe I am the only person present with the exception of Mr. Moore who was present at both committees and attended all these hearings and we know what

happened.

With the original committee there was sincerity because the commercial industry was represented at that time primarily by the actual canners themselves - people who owned the factories and the people who were sincerely interested in absolving this problem. That's the number one reason. On the committee that was set up last year, unfortunately this was not so. Most of the commercial representatives were paid personnel. I hesitate to say it, but it's true--they get paid, not for absolving problems, but they get paid for continuing problems and it became evident to our groups, after attending two or three of these hearings, that there was not the sincerity in last year's group that there was in the previous year. We feel that that is an extremely important factor as to why this did not work.

The second most important reason was--and I don't think anybody did complain, I think it was just a misunderstanding all the way around--but your Committee sent a representative to the group to take a transcript of everything that was said. In the previous committee this was not done. We were left alone in the room by ourselves to hassle the thing out and we got results. Immediately when you send a transcript into a hearing of this type and a record is going to be made of it, this becomes a sounding board perhaps for both factors. We attended three long meetings and as we are greatly outnumbered in manpower it became a transcript stating all of the ancient theories rather than a sincere attempt to make any progress on the problems involved.

I am very glad of the opportunity today to clear up what I feel was a great misunderstanding in Sacramento last year on the so-called "walk-out of the sportsmen". Gentlemen, there was an excellent reason for that. We have no one in our organization who gets paid to make hearing after hearing. I attended many meetings at the expense of my

own business and in all honesty, we cannot afford to take the time away from our businesses and continue to attend meetings when it becomes obvious that there is not much sincerity as to absolving the problems. In the case of the walk-out at Eureka, we just simply couldn't stay there another day. We kept trying and trying to get them down to brass tacks. Nothing came out of it so we just felt that we might as well go to Sacramento.

I would like to put this on record for our organization to save you people time, to save us time, to save the commercial fishing industry time, and above all to try to get to some sincere, constructive approach to what we feel is a very, very important and real problem - the conservation of our great marine resources here, which I repeat the commercial industries are just as concerned with as we are. I would like to have you give serious consideration to the setting up of another committee similar to the one that we had after the 1955 session. In my opinion, in eight years of this type of work, it was the only really constructive thing which has ever come out of the Legislature.

MR. THOMAS: You spoke about going out of business. What business is that--your own business?

MR. KETCHAM: You mean in reference to the loss of anchovies? No, what I had in mind was the live bait boat fishing industry primarily, but if you want to establish the point that I'm in the sporting goods business, it will affect my business, too, of course.

MR. THOMAS: I just wanted to get that for the record. We have bills appearing before this Committee to prevent the taking of barracuda, lobsters, abalone, sea bass, mackerel which were all supported by your organization. Now, is there a serious depletion of any one of these species?

MR. KETCHAM: We think so or we wouldn't have introduced the bill.

MR. THOMAS: So you think that drastic action should be taken

on this?

MR. KETCHAM: Yes, we do.

MR. THOMAS: Now, would you support a bill to eliminate the taking of any one of these for two years by anyone?

MR. KETCHAM: Do you mean personally now or....(interposed)

MR. THOMAS: You say there's a drastic depletion of the species. Now, we've got to do something or we....(interposed)

MR. KETCHAM: We would favor the.....(interposed)

MR. THOMAS: Would you favor the bill to eliminate or prevent the taking for two years by anyone?

MR. KETCHAM: Yes, we would in the case of sardines. We're not getting any anyway.

MR. THOMAS: Sardines are not on this agenda. The agenda we have is sea bass - the bills that have been referred to our Committee are right here. If there's a serious depletion of sea bass, would your organization support it to prevent the taking for two years by anyone?

MR. KETCHAM: I'm not in a position to answer that because we'd have to take a vote and bring it up to the organization. But, frankly, I rather doubt it in my opinion, and it's strictly a personal opinion... (interposed)

MR. THOMAS: So you blame the depletion of these species on the commercial fish take, is that it?

MR. KETCHAM: Yes, we do. Remember, I've said that we don't know. I don't maintain that we know and I don't think we ever will know. May I go on?

MR. THOMAS: Just one more question. Don't you think the public is entitled to a fish dinner in a restaurant? Don't you think the public is entitled to some of the fish? They own the fish - it belongs to the public. Don't you think a person should be able to go and get some barracuda in a restaurant--how is he going to get it unless a

commercial fisherman catches that fish?

MR. KETCHAM: How is he going to get California sardines on his menu like he had fifteen years ago if someone doesn't do something to protect these other species? That's all we're trying to do. You don't find very many California sardines on anybody's menu. We are trying to protect these other fishes before they reach the stage of the sardine. We're trying to get better fish on the menu. We sincerely believe that unless protection comes, these fish are going to disappear.

MR. THOMAS: One more question - my last question. Do you know how many tons of yellowtail were taken this year by sportsmen and how many tons were taken by commercial fishermen?

MR. KETCHAM: I don't know the exact figures on the tonnage basis. In sport fishing we go by the amount of fish taken where you go by tonnage on commercial fishing and I won't contend your point that the commercial take is minute in importance.

MR. THOMAS: What group is taking the most?

MR. KETCHAM: Well, I'll tell you. If it's all broken down on a tonnage basis I don't know because as I said we take them on a per fish basis and they take them on a ton basis.

MR. THOMAS: How many pounds are taken, do you know?

MR. KETCHAM: No.

MR. THOMAS: If I would say the sportsmen had taken five times more than the commercial fishermen, would you agree to that?

MR. KETCHAM: As I say, I don't know the figure, but I think it's possible this year - I'm not denying a real good take by sports fishermen this year.

MR. SCHRADE: Mr. Ketcham, you made a statement here about yellowtail being so plentiful this year. We have had testimony before us in San Diego the day before yesterday that the sportsmen have taken well over a hundred and sixty thousand yellowtail from San Diego, which is

four times greater than the previous year, or the largest year they had before. This testimony that we received down there also indicated that the other species of fish were running proportionately as large as the yellowtail. Has that been your observation?

MR. KETCHAM: By other species I assume you mean barracuda?

MR. SCHRADE: Yes, fish in general.

MR. KETCHAM: Yes, I imagine so, I don't know for sure but personally I think they have because they have been very plentiful.

MR. SCHRADE: Thank you.

MR. KETCHAM: But, I repeat my reason for it, I think it's because they were protected for two years previous to that. In twenty years the only significant thing that's ever happened legislativewise or biologically, in my opinion, on yellowtail has been this protective legislation back in 1955.

MR. SCHRADE: What about the other species? Were all the other species protected for two years?

MR. KETCHAM: No.

MR. SCHRADE: What about white sea bass?

MR. KETCHAM: Now white sea bass are definitely not in the category where the great increase is taken. There's been a depletion in white sea bass.

MR. SCHRADE: Well, up and down the coast we were informed just yesterday that they don't have any market for white sea bass they're so plentiful. They're selling them at the rate of six cents a pound.

MR. KETCHAM: I have never heard that. It may be true but I know as far as the sports catch on white sea bass, it is not up any. It's not at all in that same category. That was not included in my statement that all fishing was up.

MR. SCHRADE: But it is your general opinion that the sports fishing and fishing in general throughout the coast of California has

increased this year over previous years?

MR. KETCHAM: That's not my opinion; it's a fact.

MR. SCHRADE: Thank you.

MR. ANDERSON: Mr. Ketcham, what's the position of your organization on one of these bills before us relating to anchovies?

MR. KETCHAM: As I stated we have no more concern over anything than the condition of the anchovy population. That is really a treacherous situation. The entire sport fishing industry is dependent upon live bait and the only two sources of live bait we've ever had to catch these fish with are anchovies and sardines, and as you know the sardine has not been a factor in live bait fishing for some seven and a half years now and they've completely disappeared. The only remaining fish is the anchovy and if it disappears, there is simply nothing else to put in the bait tanks so we have to stop fishing. It's a tremendous gamble because of the comparatively minor importance of anchovies on the commercial industry. It is practically nothing in the commercial harvest to risk the gamble of putting the entire recreation industry out of the business over the minor importance of anchovies.

CHAIRMAN BELOTTI: Thank you very much, Mr. Ketcham. Mr. Manning Moore?

MR. MOORE: I'd like to answer Mr. Thomas' question which he placed to Mr. Ketcham regarding the tons of yellowtail fish taken in San Diego this year. If you capitalize those fish at 20 pounds a piece which, in my estimation, would be a very liberal weight allowance, that would amount to sixteen hundred tons. Yellowtail legislation in effect two years ago allowed commercial fishery to take three thousand tons; therefore, in accordance with the allowable catch it was interpreted in preceding yellowtail legislation we as sports fishermen are well below the allowable catch of the commercial fisherman.

MR. THOMAS: Commercial fishermen took three thousand tons of

yellowtail last year?

MR. MOORE: No, sir. I said that was what they could have taken if they had taken the legislative restriction.

MR. THOMAS: My question was what was the catch? How much was taken?

MR. MOORE: In fairness to both parts, the three thousand tons which was put in by legislative action was their maximum catch during the two preceding years of the time that legislation was put in effect and we felt it was a very fair catch. Now, perhaps, by the market condition not justifying the catch of yellowtail, it has increased the sportsmen's catch tremendously.

I'd like to make one other comment here. Across the harbor in Long Beach you probably see maybe thirty or forty commercial fishing boats over there. If you want to go up into the City Assessor's Office you'll find in excess of 7,000 boats registered and taxed in the City of Long Beach. Now, those people are entitled to a fair consideration of this fishery. If you'll all go to your home towns you'll find the same thing. Those people contribute probably as much to the economy in this category of fish--the barracuda, yellowtail and white sea bass--as does the commercial fishing industry. As far as being available fish for food and restaurants, those can be important. This recreation for these people I speak of is very important. I think it's economically more important. Mr. Saxby of the Cal Packers Association at one time recommended the economic structure of the fishing industry be given to an independent organization, such as Stanford University, to study just how importantly this recreation and sports fishing industry and commercial industry compares on these various species. I would like to see that done. I believe from the conclusion of such a finding that we could sit down and say these fish belong to these people and those fish belong to those people.

HOWARD MILLER, SAN PEDRO FISHERIES INSTITUTE

I'd like to first make a differentiation which we think is important, and that is that we think when you call a man a commercial fisherman you shouldn't just eliminate the people that are directly taking fish from the ocean and selling it to people for consumption. We feel that a person making his livelihood from the ocean, whether he does it directly by taking the fish or by selling bait or by selling reels, rods or by taking out sport passengers, is in commerce. I think if we could first eliminate this misnomer about commercial fishing and get down to the point that we find two groups of people trying to earn their livelihood from the sea and one group opposed to the other and one group using sportsmen as a front, what's really happened is that there are two groups ignorant to the economics of the situation, each trying to eliminate the other. When you come down to the proposed legislation it's always proposed on the basis of the sportsman and if we can just eliminate that one thing and look at it as one industry pitted against the other, a lot of this proposed legislation would seem nonsensical. Now as far as the commercial fisherman is concerned, his take in the ocean is governed by economics and that's his principal concern. A commercial fisherman isn't going to deplete any species he wants to fish. He doesn't fish it when he can't make money. Now, there could be a quantity of fish in the ocean and if commercial fish were not taken and the market is such that the fisherman can't make out--if he's going to be depleting his resources, if it doesn't pay for him to do it, then he won't do it. If they fish out a species no matter how much you pay for it, he won't fish it because he can't bring in enough up to pay for his equipment and the time that he puts in to find it. That's one reason we feel that any legislation which is going to place the brakes upon commercial fisheries is unnecessary. Now, to look back in the past Legislature,

we had bills proposed to eliminate the commercial sale of white sea bass. What position would we be in today in view of the past seasons had we had such legislation for the next two years? It's a great economic waste if we would have foisted the public by such legislation. Now, this past season there has been so much white sea bass and barracuda that one could catch it in the surf at Santa Monica Bay. In fact, comment was made that the fishing was so good that the sportsmen weren't going out because they didn't have any market for their fish.

MR. THOMAS: The sportsmen?

MR. MILLER: Well, Mr. Thomas, when you figure that in San Diego County there was by Mr. Moore's figure three million pounds of fish caught, I just wonder how much of that three million pounds of fish were consumed, and were they consumed by the people that took it. A tremendous amount of fish that certainly what we call the commercial fishery today couldn't absorb it. As far as the other species are concerned, there is no need for any legislation that would curtail the fishing -- certainly to curtail the sale of fish on the open market for any reason whatsoever. That's the stand that we would make upon any proposed legislation to control the commercial fishery.

MR. THOMAS: Would I be correct in making this statement as a summary of what you have stated? The landing of so many pounds of fish which may vary every year does not determine the amount of fish that's out in the ocean.

MR. MILLER: Not necessarily at all, Mr. Thomas. The amount of fish that's brought in is set by two things: one is economics and the other is fishing intensity.

MR. THOMAS: In other words, we have reports published often by the Fish and Game Department saying that one hundred and two thousand pounds were landed this year--two years ago four hundred thousand pounds--so from that kind of reasoning, would you say that there is

the depletion of the species?

MR. MILLER: Not necessarily at all. If the price of the fish diminished, the man isn't going to fish them. Not only that, but if there's a presence of other fish on which he can make more money, why he's going to do the same as anyone else, he's going to fish the other species. That also applies to the sportsman. If the sportsmen concentrate on albacore there will be a diminishing of the amount of sea bass that he catches because he spent most of his time looking for the other type of fish doesn't mean that the sea bass aren't there. It just means they are spending their time trying to catch the other species.

MR. ALLEN: One thing you brought out that I want to make a comment on. In other words, you're asking this question: "Who's a commercial?"

MR. MILLER: That's right, sir.

MR. THOMAS: I don't understand that question. Do you mean there are sportsmen selling fish?

MR. MILLER: Mr. Thomas, I am not primarily in the fish business and if I were to say that there are sportsmen selling fish I would only have to say that upon information and belief I believe it to be so. I am not in a position to know because I purchase fish; however, I do believe that to be a condition that has existed for some time.

CHAIRMAN BELOTTI: There are many sportsmen that actually purchase commercial fishing licenses.

MR. MILLER: That's right.

MR. THOMAS: Well, then they sell their fish?

MR. MILLER: For, I believe, \$15. Now, Mr. Thomas, you could register any small craft as a commercial fishing vessel and catch all the fish you want.

MR. HERBERT DAVIS: Mr. Chairman, Mrs. Davis, and members of the Committee, I have made a few notes as the meeting has progressed and I

think I can put all of my comments in rather a brief general statement after I have dwelt on one or two specific items that were developed here. First I'd like to comment, on the Advisory Committee and on Mr. Ketcham's analysis of the difference between the committees for the two years. I believe I can comment freely because I was not a member of either of the committees. The paid help that represented the canners in the last committee happened to be Mr. Donald P. Loker, Vice President of Star Kist Foods and if he was paid he was paid by them and not by the industry. I am the paid help of the canning industry to appear before the Legislature and, of course, I have a license from you ladies and gentlemen to do so. As far as the canning industry is concerned, it was represented on that committee by a canner, the second year the same as it was in the first year. Mr. Ketcham has covered a rather wide field but at San Diego, Mr. Rossez presented his statements to this committee covering an even wider field, I believe, but all of it comes to the same ultimate end, and that is that commercial fishing is an evil per se of some kind and that whenever it is stopped we will have paradise here for sports fishing. Comments made at San Diego with respect to anchovies are rather illustrative of what I mean when I say that the apparent cessation of commercial fishing will make a paradise. Testimony there indicated that the anchovy situation was getting so serious that they were having to haul anchovies from Port Hueneme to San Diego for bait. Testimony also was developed that there has never been any commercial fishing for anchovies in San Diego, so obviously the commercial fishing for anchovies in San Diego could not be responsible for the fact that there are no anchovies in San Diego, but there are anchovies available in Hueneme where there is commercial fishing for anchovies and available in sufficient quantity to haul to San Diego for bait.

All of this, I think perhaps substantiates the action of this

Committee at the last session of the Legislature when they undertook to make a study of the research and the amount of knowledge that we actually do have about many of these species. Again, going on the anchovies, during the time that the statute provided for a bag limit on anchovy, the commercial fishing industry did not take that bag limit. The bag limit went off as of the first of this month, approximately thirty days ago. There has been no increase in the fishing for anchovy and, therefore, either the bag limit was in error when it was on or some other condition has caused a decline in the supply of anchovy if there is a decline in the supply of anchovy. I might suggest that maybe the anchovy is endowed with a little intelligence and when the water suddenly got filled with barracuda and sea bass who rather like anchovies for appetizers, they got smart and left the country.

It's quite significant that whenever we have an influx of one species of fish very frequently that results in the decampment of another species of fish because nature provided that they at least have sense enough to protect themselves to some extent. I don't offer that as a scientific statement or proof of the fact that such a situation took place. I mention it only because all of the evidence that we have before this Committee - the two days of sessions that you have had - is strictly opinion and conclusion, most of it from nonscientific people. I am guilty of the same thing and I think that perhaps the best statement that's been made before this Committee for several years was made by Mr. Croker at San Diego on Wednesday when he said he thought that perhaps the time had come when we should take what he described as a positive approach to these matters rather than a negative approach and just quit talking about restrictions. He didn't elaborate a great deal on that but I think it is safe to say that he meant that he would like to have available to him and to the Committee perhaps a little more information, more knowledge about many

of the things that we are talking about. Get some facts rather than just conclusions before we create a situation where he, representing the Department of Fish and Game, perhaps spends as much time appearing for or against advocated restrictions at sessions of the Legislature as he does conducting research to find answers.

This Committee has undertaken to study the research that has been done and attempt to evaluate it and to determine in your own minds whether or not there is sufficient evidence to justify some of the restrictions that are proposed. At this point I want to state that the commercial fishing industry as such has no objection to restrictions that are based on fact and based on some evidence that the restriction itself would produce any results. I have importuned this Committee many, many times over the years to the effect that we just do not have any evidence to indicate that curtailing a man's activities in an ocean of this size would result in any benefit and if it doesn't result in any benefit, then there is no particular reason why the people of the State of California and the United States should be deprived of the opportunity to utilize and consume any of the products of this ocean without having to come to Long Beach or Santa Monica to catch them themselves, so we are very much in support of your attempt to analyze this situation.

Now I think you're going to find one problem in connection with this study. Mr. Croker did not make this statement to the Committee, but I'm sure he will concur in what I'm saying and that is that the Department of Fish and Game does have a great deal of information about many things and quite a portion of it is not published. There are various reasons for not having been published, some of it has only been concluded recently. You have access through your staff to the published material. You will have to go into the unpublished material in order to get all of the answers because in many instances

some of the unpublished material over the years is quite valuable and is considered to be general knowledge.

Now, I'm quite sure that you Ladies and Gentlemen of the Committee realize that a rather serious situation developed at the last session of the Legislature over the matter of finances of the Department of Fish and Game. The Senate was specifically critical about the amount of money the Department of Fish and Game spent in the publishing of scientific material. They criticized to such an extent that I believe the Department is taking cognizance of that criticism and may not be publishing today a great deal of material that should be published. I have undertaken to go through much of the material that the Department has on one or two species of fish just to see what is there and the thing that I discovered was that over a period of years there were a great many pieces of research done on some specific types of fish. Let's take mackerel for an example. Each of those bits of research added together constitute the entire field of research that they have covered in that species. Each step of the research has drawn some conclusions of some kind or description. Many times, and it was pointed out this morning on the kelp, the conclusions of a second researcher coming along seven years later may completely invalidate the conclusions of the first researcher. That is due to the fact that as you accumulate knowledge you change your thoughts on your conclusions. I feel constrained to defend the research per se because it is a never-ending proposition and the time that you stop research you're going to stop the progress of the world.

I think that the fault has been that at no place along the line have we ever stopped and taken time to accumulate all the stuff that's been done and see if it can be boiled down to today's conclusions and then report it as such, but on the basis of the information that we have now--thus and so is such--on the basis of some further information

that we may get in the future we may find it necessary to change our opinions; therefore, I urge this Committee, as I have for a number of years, please do not consider that the mere fact there is a law isn't necessarily going to cure any of the ills that may be facing the public. Now that goes not only for fishery research, it goes for pollution problems as well.

As I mentioned to you, Mr. Chairman, on many occasions, we would have a lot of fun if it just wasn't for people. If there weren't any people around here, there wouldn't be any pollution, there would be nobody to complain about it, there would be no sportsmen unhappy, no commercial fishermen out of work but we have people and we will probably have more people, and very frequently we rush in and pass a law on it.

I enjoyed a six or seven hour drive not long ago with Mr. Allen where he expounded at some length about the fact that it seems to be one of the great American pasttimes that every time somebody thinks that his idea is better than somebody else's--let's pass a law on it. Whether the law does any good or not, according to Mr. Allen, is entirely beside the point because we never repeal them and they're always there to keep getting in our way. I think perhaps if we could be sure, and I make a point of Mr. Croker's position as stated at San Diego, that we take the positive approach and quit thinking about restrictions and see what the facilities are for finding out what really ought to be done. If this were the policy of the Department of Fish and Game, I would be very happy. I think the last session of the Legislature indicated quite definitely that the policy of the Department of Fish and Game was not always in accord with the expressions of the honest opinions of some of their very fine employees.

CHAIRMAN BELOTTI: Thank you, Mr. Davis. Now, Mr. Richardson, on the subject of commercial fisheries and skin diving, do you have anything

to offer that has not been presented already?

MR. RICHARDSON: No, I think it's pretty well covered.

CHAIRMAN BELOTTI: All right. Mr. Loker, did you want to add something to that?

DONALD P. LOKER, STAR KIST FOODS, TERMINAL ISLAND

My only comment, Mr. Chairman, is to express my gratitude to you and all of your members, to your staff, for the sincere and conscientious efforts you are making to try to solve some of the perplexing problems of the industry and also for the sportsmen.

CHAIRMAN BELOTTI: Thanks to you, Don.

MR. KETCHAM: One thing I do resent about the opposing groups' statements today is the inference that a great many sport fishermen sell their fish. That's greatly exaggerated in my opinion and I would like to have the Department state what their restrictions are as to so-called sports fishermen taking a commercial fishing license and if it is a simple thing to do. I don't think this is true. I think it's very difficult for a sports fisherman to obtain any kind of a commercial license. That's my opinion. I may be wrong but perhaps the regional control people might be in a little better position to answer that question. I don't think there are any sport fishermen selling their fish.

CHAIRMAN BELOTTI: Mr. Croker, I think what Mr. Ketcham is aiming at is your definition of a commercial fisherman.

MR. THOMAS: Could anyone obtain a commercial fishing license?

RICHARD CROKER, DEPARTMENT OF FISH AND GAME

Anyone with \$10 at present and beginning next April with \$15 can obtain a commercial fishing license.

CHAIRMAN BELOTTI: In other words, you don't have to be a commercial fisherman in the category of one who makes a living entirely from going out and fishing and then selling the fish for resale to the

general public?

MR. CROKER: That's right. I believe you have had referred to your Committee a study of the possibility of a law that would include such things. I believe Mr. Pattee had a bill referred to you which you will probably take up later. At present the Fish and Game Code says that anyone may obtain a license to fish for profit. On the other hand, a person can buy a license for commercial fishing without showing that he is attempting to make a profit. Also, of course, there is the stipulation that any boat involved must be registered and the registration fee of \$10 paid. Sports fishing party boats are also required to pay the \$10 registration fee.

CHAIRMAN BELOTTI: A party boat that operates with a commercial fishing license may sell the surplus fish that they don't want to take home to commercial interests, can they not?

MR. CROKER: No, sir. Under the law, a boat may fish either commercial or party fishing but not both on the same trip. So, if a skipper has Tuesday off and doesn't take any passengers out as some do, on Tuesday he can go commercial fishing with the same registration for his boat. He must have then a commercial fishing license. But no fish taken on board a boat carrying passengers may be sold. Now, obviously some fish are peddled, there's no question about that. Testimony before the Advisory Committee last year indicated that when some fishermen get into the back country, they do peddle some fish. But that is without benefit of the commercial license.

MR. THOMAS: Could I get a commercial fishing license and go on one of these party boats and catch a lot of fish and sell it?

MR. CROKER: No, sir, not while it is carrying passengers.

MR. THOMAS: In other words, when you go out on those boats you can't have a commercial fishing license.

MR. CROKER: You can't use it.

MR. ALLEN: Mr. Croker, the thing that we're talking about now is the man it involves and I think this should be definitely understood. The man it involves puts a great investment in his fishing vessels and he does nothing but purely commercial fishing. As I recall, several times before the committees in Sacramento and elsewhere both the commercial fishermen and some of the sportsmen themselves and some of the laborers find that the man who comes down and takes a \$15 license is probably a machinist or has some other interest; but on Saturday and Sunday he takes that boat out and he engages in the practice of fishing for two days in the commercial fashion without limit to numbers of fish - with the exception in your yellowtail. He takes this fish out on the market as an independent, peddles it up and down the street to the detriment of butchers, retailers, wholesalers, canners and the rest of them. There is a considerable amount of that being engaged in in northern and southern waters and it is a practice that has been somewhat noticeable. It has been annoying to all people. I think you might expound on that. What can be done to curtail that particular activity?

MR. CROKER: The pros and cons of this are numerous. To us in the Department of Fish and Game, the way the law is now, a man with a commercial fishing license is treated as a full equal to a full-time fisherman. If he's a lumberman, works in a sawmill, goes out Saturdays and Sundays and fishes commercially during that time, he has all the same respects as any other commercial fisherman. To us, he's a commercial fisherman. We have no interest in his sawmill work. To the sportsman, to the full-time commercial fisherman, he is a part-time fisherman, a phony you might say, but as long as the law is the way it is, we will continue of course to treat him as a full-fledged and fully honorable commercial fisherman.

The only people with whom we can quarrel are those who try to sell

their fish when taken on passenger carrying boats because this is illegal. Now as to the ideology of the situation of the weekend fisherman, that we feel is a matter of legislative policy to be set and we have offered various suggestions because our customers, you might call them, on both sides of the argument have presented various thoughts and ideas and we will be most happy, when that bill comes up, to help with suggestions. We proposed some which were actually submitted in the form of a couple of bills, I think. If the people as a whole feel that this part-time fishing is bad, it can be stopped. There's always the question, though, is it altogether bad? The man can't make enough to make a living on shore, certainly we of the Department can't deny him the right to make a living at sea. Perhaps the people may feel that way.

MR. ALLEN: Yes, there is a moral problem there. There is a moral problem and I think that anyone with a fair mind will concur that if a man wraps up a hundred and fifty thousand up to seven hundred and fifty thousand dollars and announces to the world that he's a commercial fisherman and then some fellow goes down here and gets himself a one or two-man boat that he can buy for around ten or fifteen thousand dollars and goes out over the weekend and undercuts the market, it is unfair. Some of your wardens have testified that that particular type of a fellow hasn't the investment such as the big operator has. He's got nothing involved like the large fellow has who from time to time may overstep the limitations and you people wrap him in. This fellow has nothing. You can confiscate his lines and he can go right on back into business again because it's very simple. That's what I understand were some of the chief complaints up there and especially from the sportsmen that these people who went out over the weekend - the weekend type of fisherman - was the fellow who would take every chance in the world and he was the worst game hog - that he would

violate everything in the book quicker than the man who had the investment.

CHAIRMAN BELOTTI: I'll say this. As Mr. Croker has stated already, we discussed this very problem, Mr. Allen, in committees before but no one has been able to come up with the legislative solution to the problem as yet. Certainly we're open-minded and we hope we will get it.

MR. ALLEN: Well, you had a bill there that attempted to correct that situation, didn't you?

MR. CROKER: Well, there was a bill. It was proposed by the Fishermen's Co-op. Association here in San Pedro which would have helped. Mr. Pattee had a bill that referred primarily to salmon which might have helped.

MR. THOMAS: I'd like to get back to the program of all these bills which were referred to the committee to prevent the taking of barracuda, sea bass, spiny lobster, placing a tremendous restriction on commercial fishing. What is the thinking of the Department on these bills?

MR. CROKER: Before I answer that question I would like to qualify myself as able to answer that.

MR. THOMAS: Certain people want to put the commercial fishermen out of business. Is it necessary? Have you done any research on sea bass, barracuda, mackerel? Is there depletion?

MR. CROKER: If I can qualify myself I'd like to say a few words for the record. I've dedicated my life to serving the people of this state, particularly the fisherman and have accumulated as much information as anyone has on the fisherman. When I say I've tried to serve the people, I don't mean the sportsfisherman, boat owner, the purse seine fisherman or any other one group. I try my best to represent them all and I have found as you people on the committees know that

that's a pretty frustrating experience trying to represent everyone. But I'm happy to share that responsibility and that frustration with you gentlemen and Mrs. Davis. Our staff, including myself and other working biologists, have as Mr. Davis has said, accumulated a very great store of information. We will never have all the answers; I don't have them now. We know as much about the fish, the condition of the fishery as anyone does and I think that we can give you the data on most of these species in question and tell you what we feel is wrong with them - if anything is wrong, and I would be happy to do so.

MR. THOMAS: Is the Department supporting these bills?

MR. CROKER: The Department is not supporting these bills.

MR. THOMAS: You're familiar with that O.F.P.A. program to put the commercial fishery completely out of business. I want to try to find out how the Department feels. Is it necessary to prevent the taking of all these species?

MR. CROKER: At the last session the Department supported, of course, the anchovy limit bill because that was the bill that was agreed on.

CHAIRMAN BELOTTI: That was A.B. 1687?

MR. CROKER: Yes. It was advocated by the Citizens Advisory Committee which the chairman appointed; hence, we naturally went along with that bill as an expression of the public wish for the bill to be enacted. When the bill was amended to raise the anchovy limit we went along with it. The Department supported the bill, at least in principle, which suggested a limitation on Pacific mackerel. The Department supported the abalone bill because at that time it was an agreed-upon compromise by the Advisory Committee of the year just before.

MR. THOMAS: Does the Department know how many seals are out in the ocean here? Have you made a calculated count?

MR. CROKER: We haven't made a count for about ten years, Mr. Thomas. At that time, if memory serves me right, the count had held steady for a very long period of years at about, I think it was twelve thousand. I don't recall whether that included only the southern species of California Sea Lion or whether it included both species but the count had held steady for many, many years up until 1947 which was our last count.

MR. THOMAS: I read in the Fish and Game Department Bulletin it takes eight pounds of fish a day to feed one seal. With twelve thousand seals, it's ninety-six thousand pounds of fish a day on seals. Has anything been done about the predators - for example, the sheep-head that lives off the abalone and spiny lobster? Has the Department done any work or research toward finding out what predators are a detriment to the fisheries? You've done it on lions, you've done it on bobcats, you've done it on crows and I think there's a bounty on crows. Has the Department ever done anything on the predators of the ocean?

MR. CROKER: Very little, Mr. Thomas. You'll recall my remark the other day when I said that our staff was so busy either trying to find support for or opposition to all the bills that were introduced on fisheries that many of things we should be doing must of necessity be neglected. That is true for the study of predacious animals. We have made a start on searching the literature on what people have found out and about all we know is that we can't just say that so many pounds of fish times so many sea lions means so much destruction of fish. It's a much more complicated situation than that and pretty obvious that that eight pounds or whatever it happens to be that a sea lion eats may very well be species of fish which in turn may eat twenty-four pounds of good fish.

MR. THOMAS: Is it possible for sea lions to eat anchovies?

MR. CROKER: Sure it's possible but they'd be wasting a lot of time catching anchovies.

MR. THOMAS: I want to know what the Department has been doing in the line of research on predators.

MR. CROKER: As I said, not too much.

MR. THOMAS: That could be very little.

MR. CROKER: We are trying to determine what this very delicate inter-relationship of all these species is. I have tried to point out. We know that much of the fish that sea lions eat is so-called scrap-fish - fish which compete for the same food with good fish and fish which eat fish. For example, hake. Now, you realize that the hake is a very useless fish for food as far as people are concerned, and not even good for fishing. There are astronomical numbers of hake in the ocean competing with the good fish and eating the good fish. They are voracious and will eat a tremendous quantity of other good fish. Sea lions apparently eat a great quantity of hake. Now that's why we have to go a little cautious in advocating an all-out war on predators. We might kill the sea lions and I think it would be possible to diminish their number to the point of no return. I would not advocate it on the basis of present knowledge, I don't think anyone would because we might be turning loose a lot of things that sea lions are keeping in control. We found out lately off Long Beach that we have in that somewhat less favorable environment than it used to be before there were any people here, a lot more numerous species of very harmful fish - sharklike fish, electric rays, guitar fish which Mr. Fitch's studies have shown are certainly not declining the numbers and which are eating extremely large quantities of valuable fish. These pelagic bottom-living fish actually can catch sardines and mackerel. It looks as though perhaps we should declare war on these fish but perhaps some other animal in the ocean is keeping some control on them.

We certainly should not advocate an all-out war on any one kind of predator until we know its relation to other kinds.

MRS. DAVIS: I've been listening very attentatively relative to Mr. Thomas' questions, particularly on the predatory situation, and I don't think you meant what you said, at least perhaps the way it sounded, and I would like to have a clarification. You said that your Department really doesn't have too much information on that particular subject due to the fact that you're spending most of your time during the legislative session either looking for support or opposition to bills. You didn't mean it in that way --

MR. CROKER: Trying to get the facts to support or oppose all these bills. I'm sorry that you weren't at the meeting in San Diego where I mentioned that we so often feel frustrated at having to spend so much time looking only at the effect of man fishing on these resources when there are so many other things that do have their effects and perhaps we might be able to find the answer on how to control these things so we could do some good. Now one of the things Mr. Thomas has picked up would be the possibility of selective programs on predators. That's a very real thing and a very good possibility. There are many other things we might be doing of a positive nature.

MR. ALLEN: Mr. Croker, your statement down there caught me off balance and I must admit it gave me quite a glow of pleasure because in a survey that I took a few years ago we find that about 94 per cent of the laws that are requested are introduced by various department heads which brings me up to this one subject. The matter that Mr. Davis mentioned was when all of our laws were contained in nine volumes of Deering's Codes. Today we have about sixty-eight, so somebody has been busy writing legislation in the ten years that I have been gone.

MR. CROKER: Ours were the smallest.

MR. ALLEN: Well, yes, that's quite true. It's greater, however,

than it was in 1947, which brings me to this point, this final subject of yours of something to do that was positive. Frankly, the first time since I've been a member of this Committee--that goes back skip and stop years ago--the first thing constructive for fish refuge was pointed out down in the San Diego hearing by Colonel Todd. To that end do you people concur? We should be taking a positive step and what can be done about it, in your estimation, to encourage some of these fish refuges where we need them?

MR. CROKER: That's one approach that might be extremely fruitful.

MR. ALLEN: Now, could this Committee ask the Fish and Game Department to give its attention to a preliminary survey or a preliminary study so that we might have some of the answers within a very short time as to the feasibility and the practicality of it. Do you have sufficient printed or unprinted information or ways to obtain the information as to whether or not it might be worthwhile to immediately get a test program in?

MR. CROKER: Well, as usual, Mr. Allen, we are trying to keep one jump ahead of the situation. We have right now a fairly big project on habitat improvement and development in ocean waters only. We are in communication with all the other agencies. We've had our scouts on the East Coast actually fishing along those refuse boats and a variety of other places. We have a rather ambitious program to find out just what can be done. Now I must say this is primarily pointed toward sports fishing because it would be a federal aid project; however, there's no reason why this can't become extremely useful to the commercial fisheries also. Some of the things our people have in mind are really fantastic; for example, the big new steam electric plants along the coast bring in ocean water to cool the condensers and then release the water. The water for a distance--very small to be sure--around each of these steam plants is warmed by these releases.

Can we introduce tropical species of fish into these small areas and provide fishing that never existed? It's worth trying. It may sound fantastic, but I think it is a somewhat practical approach. That's an example of the long-lived frame of thought that we have under study. This morning I had a formal discussion with a representative of the oil and gas association leading toward what we can do to assure good fishing and improved fishing in the neighborhood of the islands that are now being constructed for oil well drilling. I think if we can all start thinking in those terms instead of only in restrictions we have a field before us of unlimited opportunity.

MR. ALLEN: One more parting shot then. Suppose that we would declare a moratorium on all proposed or all wanted legislation for a couple of years. Like Vince said, "Let's stop all kinds of fishing for two years and see how it goes". Supposing we lawmakers took a moratorium on the introduction of all bills to see what we could do with the present labyrinth of lawyers' contracts that we've got in Sacramento at the present time that we're all trying to fulfill.

MR. CROKER: Let's not get too enthusiastic over this moratorium, Mr. Allen. There are still some odds and ends - not necessarily restrictions - where we can still have improvement. The basis was laid with the revision of the Code. We've got a clean Code to work with now, and the idea that I expressed the other day was to consider cleaning out a lot of proposals on outright restrictions.

MR. ALLEN: Well, if we could declare a moratorium, if we could take the Code and finally out of its developments find what is actually needed, maybe we might be able to take a little rest on everybody's nerves.

CHAIRMAN BELOTTI: Are you thinking seriously of putting the Fish and Game Department out of business?

MR. ALLEN: No. They've got other work to do besides running

around the Legislature and getting information for these people as to whether this bill is right. You read my book called "There Oughta Be a Law". You'll understand it. Here's my candid feeling and you can just sum it up this way: instead of living under the simple rules of human conduct and good manners as so many of us should live at peace with one another, we've degenerated into lawyers' contracts over which learned supreme court justices have dissented. So therefore, how in the world are we to say to the average person that the ignorance of the law is no excuse therefrom when supreme court justices dissent with one another on the true meaning of some of the legislative acts that we people have been grinding through the grist mill. Frankly, if we went to Sacramento and never enacted one more law, but started a careful repeal of these laws, I think that we would be doing the people a greater service than we are at the present time by trying to take every malcontent's bill in and try to put it into law so that he can straight-jacket his neighbors.

CHAIRMAN BELOTTI: Thank you, Mr. Allen.

(The following written statement was submitted and accepted by the Chairman:)

F. E. BOOTH COMPANY INC.
1411 W. 7th Street
Long Beach 13, California

October 4, 1957

Assembly Fish & Game Committee
Re: AB 1687

Chairman Belotti and Gentlemen:

The anchovy fishery, both bait and commercial, is exploiting only a fraction of an immense population. Here is a resource which, the facts show, is under-utilized from Port Conception southward.

For the past four years, since 1953, the annual catch of anchovies in Southern California for both bait and commercial use has averaged about 32,000 tons. For the four years preceding, 1949 through 1952, the annual catch of anchovies in Southern California averaged about 6,400 tons. Thus the average annual catch of anchovies increased

almost five fold. Yet there can be no doubt the anchovy population off Southern California has increased in recent years. In fact, from the extensive collections of anchovy larvae made in California Cooperative Oceanic Fisheries Investigations cruises, it is estimated that the spawning population in 1954 and 1955 was twice as large as the spawning population in 1951 and 1952 in the Southern California-Baja California area. Actually, therefore, the population of anchovies increased during the years of heavier fishing.

The distribution and abundance of anchovy spawning is described in the last Progress Report of the Marine Research Committee (pg.33-38). In this report it is pointed out that the area of heavy spawning lies to the south of Point Conception, between Point Conception and Point San Juanico, Baja California. This area has a north-south extent of approximately 720 miles. Anchovy spawning occurs every month throughout the year in this center of heavy spawning. Further more, the distribution of spawning fish is continuous.

The more recent data indicate the anchovy matures much earlier than was thought several years ago. The age length data on the commercial catch (Niller, et al in Fishery Bulletin No. 101 and Miller, et al in a manuscript for years 1954-55 and 1955-56) shows a considerable percentage of anchovies mature and spawn before they are one year old. In checking against earlier work it can be shown that about one-third of the anchovies must mature and spawn before they reach one year in age. Essentially most all the anchovies are mature before two years old.

The age data shows that the one and two year old classes make up the bulk of population of the commercial catch of Southern California. The percentage of 4, 5 and 6 year old anchovies is negligible. Thus the life span of the anchovy is short. The anchovies start to reproduce early in life and live but a few years. Unless the anchovies are taken and utilized in their early years then the anchovies are virtually lost forever to man.

The fishery off Southern California is fishing only on the upper quarter of the population. The lower three quarters of the heavy spawning area (off Baja, California) is virtually unfished.

The anchovy resource is in a very healthy state. Actually the anchovy resource is now being utilized far below its best economic potential.

There appears to be no need at the present time for any bag limit on anchovies.

The anchovy industry should be permitted to grow beyond its present size. The additional products from the sea means more jobs, greater payroll in producing more canned fish, fish meal and other by-products, creating new wealth for the people of California.

Respectfully submitted,

F. E. BOOTH COMPANY, INC.

A. H. Mendonca, President

CHAIRMAN BELOTTI: We have one person who has indicated he has to leave within the hour. We will hear you now, Mr. Rukavina.

MR. THOMAS: I think in order to clarify the record, he had a complaint; he came to my office and he wanted to talk to the Committee. The man was found guilty of fishing for salmon and fishing near a pier. He paid an \$800 fine and three years probation.

Now his complaint is this: It is not against the wardens but there were two wardens and a civilian who made the arrest. The civilian came on the boat and threatened him and said he'd beat his brains out and that's the complaint he has against the civilian who was with the wardens.

I wrote a letter to the Department asking who the persons were who made the arrest and I could not get the answer. I have the letter here from Seth Gordon and I don't know what to do about the case. If it's the policy of the Department to have civilians go along with the wardens to make arrests, I thought that that would be pretty good information for the Committee. If it's not the policy, we would like to hear.

CHAIRMAN BELOTTI: Mr. Shannon is here representing the Department. I think we'll ask Mr. Shannon to come up and I think he can explain it to the Committee.

MR. THOMAS: Wait a while - I don't want my statement to go on the records as representing this man's case. I want him to tell the Committee what the civilian told him on the boat.

CHAIRMAN BELOTTI: All right, Mr. Rukavina, tell us in your own words what happened.

MR. IVAN RUKAVINA, OWNER OF THE FISHING BOAT "CITY OF SALLE"

Yes, I understand. In my opinion the Fish and Game officials had the right to arrest me on the second day, but they waited until the fourth day to board my boat. Two Game officials and one civilian

came, and he called me a bad name.

MR. THOMAS: What did he call you?

MR. RUKAVINA: Should I tell you?

MR. THOMAS: It's in the record, I want to know.

MR. RUKAVINA: "You son-of-a-bitch".

MR. THOMAS: What else did he say?

MR. RUKAVINA: "If you ever come within sight of shore, I'm going to knock your brains out." That's what he told me. I looked at my boat and it was bouncing up against the other boat and the civilian was in my boat and that's when he called me those things. I think it's against the law to have to do that in open sea. That's my complaint.

MR. ALLEN: As I understand this, while you didn't like to get pinched, you didn't object to the proper arrest by the uniformed officers, but the presence of the civilian that called you the names-- you feel that that civilian was aboard your boat unauthorized, that he trespassed on your boat.

MR. RUKAVINA: Absolutely. Under the United States law I have just as much right on my boat as any other captain in his own boat. It makes no difference whether it's a battleship or a small boat so long as it is registered.

CHAIRMAN BELOTTI: The objection that you have is the fact that they had a civilian and he was acting the same as the warden, was he not?

MR. RUKAVINA: I don't know how he was acting. He didn't tell me his name, I don't know even today his name or anything.

CHAIRMAN BELOTTI: But he's the guy that called you the names under the protection of the wardens.

MR. THOMAS: There is no complaint against the wardens as I understand.

MR. RUKAVINA: I don't complain against the wardens at all, just

the civilian who came with the wardens.

CHAIRMAN BELOTTI: I don't know what this Committee can do to help you.

MR. ALLEN: Frankly, there's a simple solution to that. If some guy ever got aboard and told me that he was going to take me apart, I'd give him the opportunity. I'm just that kind of accomodating citizen.

MR. RUKAVINA: I don't feel anything against Fish and Game because I'm the one that violated with the understanding I didn't happen to have the '55-'57 Code in which the pier is a closed area for one mile. Instead, I had the '51-'53 and it says that fishing is allowed within half a mile. My complaint that when they knew I had violated the Fish and Game Law, they should have arrested me right away instead of four days after and have the public opinion against me. I was in the county jail waiting the court decision on August 15th.

MR. THOMAS: You told me that the public threw rocks at you.

MR. RUKAVINA: They did. A couple of nights they warned me and said, "Your court is over and you'd better beat it as soon as possible." And I beat it. It was Saturday morning between 6:15 and 6:30 when I started my motor and I beat it. And the same morning there was a couple of fishermen up by the wall floating some kind of oil. I don't know whether it was gasoline or fuel oil, but the Captain of the boat started to holler. The Captain of this troller said, "You better not start the motor, because the gasoline stinks." There were five of us tied up. Soon as I heard the gasoline was leaking, I started and beat it away in the fog by myself. I didn't want to stay any longer because public opinion was against me.

CHAIRMAN BELOTTI: All right, Mr. Rukavina, thank you. We'll get an explanation now from the Department of Fish and Game.

MR. SHANNON: After we received Mr. Thomas' inquiry on this, we

made quite an investigation because we like to look into this kind of complaint. Mr. Thomas, when you asked for the names of the people who made the arrest, we gave you the names of Wardens Stewart and Harris and we thought that was what you wanted. They're the ones who boarded the boat and made the arrest.

MR. THOMAS: In my letter to Seth Gordon I said, "Also I would like to know who made the arrest and names of the persons who were present".

MR. SHANNON: There was one civilian who was present at the time Mr. Rukavina spoke about - a man by the name of Mr. Ruth and I'll explain how that happened.

MR. THOMAS: I'm not accusing the Department of any mismanagement, you understand that. If a man comes to me and has a complaint, I think it would be a good idea to bring it before the committee. We're here to find out complaints.

MR. SHANNON: We're very happy to explain that because it's rather an unusual situation and we don't, as a rule, take civilians with us when we make arrests; however, we run into this situation. It happens every once in awhile where a civilian comes to us and says, "I know where somebody is violating the law. If you'll go with me, I'll show you." And it's our duty and responsibility as public officials, servants or officers to accompany that individual to apprehend a violator, if the thing is occurring as he so states.

Mr. Rukavina said that he wondered why he was not arrested three or four days before because he had been fishing for three or four days. The situation was this: Warden Harris was assigned to Morro Bay. August 1 was his first day of duty on that district. He had come down from San Francisco on July 31 which was his day off. It was right at the time of the change of wardens. The warden who left Morro Bay went to San Francisco. Warden Harris is here today in case the Committee

would like to get any answers from him; he'd be very happy to answer any questions the Committee might have. He arrived there on his day off and his first day of work was the next day. He no more arrived there than he got a report that this man was out there violating the law, fishing within a mile of the pier and also taking salmon by net, both of which are against the law. So he immediately went to work on it and called another warden by the name of Stewart who said that he had just received this complaint. They went out there on July 31st and saw the flags on the net but Mr. Rukavina was not out there. They had no boats. They took bearings by camera to establish distances that the various parts of the net were from the pier. The next day when they went out they didn't have a boat at Cayucas. Their closest boat was a small row boat or skiff which was based at Morro Bay. It would have taken them four or five hours to go down and cross the open sea to come up to Cayucas.

So, they went out on the pier and Mr. Ruth, who handles the boat concession on the pier, volunteered to give them a boat to go out there. It was a rather small boat, about a sixteen-foot boat with an outboard motor. The sea was rough, it was a borrowed boat, and they were somewhat questionable as to whether or not it would be safe to take that boat, not being familiar with it. So Mr. Ruth volunteered to take them out to Mr. Rukavina's boat when it showed up. Now, that was the first time that they had seen Mr. Rukavina out tending the net, which is essential. In other words, if they're going out to apprehend a man, they had to find him operating a net. So he came out to the net and Mr. Ruth took them out to the City of Salle which is Mr. Rukavina's boat.

When they got there, the first thing that happened when the two boats came together was that Mr. Ruth, who was very excited about this thing, jumped on Mr. Rukavina's boat before anybody could do anything

and I assume called Mr. Rukavina the name that he told you he was called. That was by the civilian. Our warden then immediately took Mr. Ruth in hand, told him that this was not going to happen any more and to get back into the boat and stay there and he did. That's how the civilian accosted Mr. Rukavina.

From there on they wrote Rukavina a citation, he was in violation. (I understand that his helper advised him, prior to that time he was violating the law.) Then the warden rode back with Mr. Rukavina to Merro Bay and the other warden went back to Cayucas with Mr. Ruth. That is about the situation. As far as the fine is concerned, neither warden was there nor had they recommended to the judge the amount of the fine; the attorney went in and the wardens weren't there and the case was settled before the court without the wardens' presence, although they had a preliminary hearing. Then they changed the plea to guilty, appeared and paid the fine.

MR. THOMAS: What's the man's name again?

MR. SHANNON: The man's name is Mr. Ruth. R-U-T-H.

MR. THOMAS: It wasn't a Fish and Game boat?

MR. SHANNON: No, it was a boat that this man volunteered to take the wardens out because there was no other boat available.

MR. ALLEN: Mr. Chairman, may I make this observation? As City Councilman working with the police department, quite often I've arrived at the scene of an accident with the accident investigators. Some civilian, who had been rather indignant and positive in his statement that one of the violators had committed something that displeased him, would often come out, butt in and volunteer in blasphemous ways with the use of obscene and vile language. He'd get it out of his mouth and then the police officer would collar him and tell him that he was violating the law, Section 15 of the Penal Code, by challenging to fight, the use of obscene language in the presence of others and so

forth. Now, I don't know what these wardens can do in a case like that. These things can happen pretty fast and it's an unfortunate situation. I've had that happen to me.

MR. THOMAS: I still think that the man has a right to come here and.....(interposed)

MR. ALLEN: Oh yes, I agree.

MR. THOMAS: I don't want to deny him that right. As the skipper of that vessel he is the sole master of that vessel if a stranger would come onto his boat and threaten him. That is the situation I was trying to clear up.

MR. SHANNON: We're very happy, Mr. Thomas, to be here to explain the situation because we didn't like what this man did, but the first thing he did was jump on the boat and before the warden could collar him and get him back on the boat, he challenged Mr. Rukavina. It was unfortunate. We're very happy to explain this.

MR. THOMAS: I have regard for the warden -- you have some pretty good men working in the Department. I think this is the best way to explain the situation. Of course, my feeling as to other personnel in the Department is.....(interposed)

MR. SHANNON: I understand.

CHAIRMAN BELOTTI: Do you have anything further you'd like to offer, Mr. Rukavina?

MR. RUKAVINA: I want to ask you, Mr. Chairman, and the Committee if I had the privilege to go and fish the halibut in Morro Bay? It happened that I caught the salmon there which is entirely against the law according to the Fish and Game. How could I keep the salmon away from the nets?

CHAIRMAN BELOTTI: Did you catch the halibut in the nets?

MR. RUKAVINA: Yes, I caught the salmon, too. Could anybody tell me how could I.....(interposed)

MR. SHANNON: Mr. Chairman, it was against the law to catch halibut in nets.

CHAIRMAN BELOTTI: Yes, that's what I was going to say. I'm sure it's not legal to catch halibut by net in that particular area where you were fishing. Is that right, Mr. Shannon?

MR. SHANNON: It's not legal to use a trammel, which he was using, within one mile of the pier to catch any kind of fish.

MR. THOMAS: Yes, but it isn't the fact that you can't catch halibut. You were arrested because you were half a mile from the pier. You should have been a mile out.

MR. RUKAVINA: I understand.

CHAIRMAN BELOTTI: Apparently you didn't understand that you couldn't use that gear in that particular place.

MR. THOMAS: Are you satisfied with the explanation that the Department gave on your case?

MR. RUKAVINA: I have to be.

MR. THOMAS: I didn't mean it that way. It seems that so far there's no blame that can be placed on the wardens. Did you have a lawyer?

MR. RUKAVINA: I did have a lawyer.

MR. THOMAS: What did you pay him?

MR. RUKAVINA: I paid \$150.

CHAIRMAN BELOTTI: I assume that you were well represented if you had an attorney.

Now, Mrs. Gillette has been waiting there patiently. We'll call on you.

MRS. NELLIE E. GILLETTE, CALIFORNIA STATE GRANGE ADVISORY
COMMITTEE

Mrs. McDougall, the spokesman for our Committee, was unable to be here today. She was at San Diego the other day but did not have

the opportunity to hand in her report. In order to save time, may I introduce her testimony in this way without reading?

CHAIRMAN BELOTTI: You may comment then as you wish in addition to presenting the written statement.

MRS. GILLETTE: I believe she has it written very fully here. It is only a statement of recommendations that the State Grange would like to have this Committee pass.

CHAIRMAN BELOTTI: Fine. Thank you very much, Mrs. Gillette.

To: Assembly Interim Committee on Fish and Game
San Diego, California October 2, 1957
San Pedro, California October 4, 1957

From:
Advisory Committee on Fishing,
California State Grange,
2101 Stockton Blvd., Sacramento, California

Re: PUBLIC HEARINGS ON SELECTED SUBJECTS

INTRODUCTION

The Committee on Fishing of the California State Grange, having as its objective the promotion of better relationship between Commercial, Recreational and Governmental fishing interests; the formulation of equitable legislation to preserve the natural resource; the increase of new wealth to the State of California which this resource provides, and the safeguarding of a valuable potential food supply with due regard for the inherent rights vested in all peoples, without discrimination, respectfully requests this Committee refrain from recommendation of any additional new legislation which restrains or limits the commercial fisheries in favor of the recreational interests.

We believe it far more important to have fewer laws, but these be sensible laws based on definite biological and research information, than a constant "off again-on again" type of regulation as the result of pressure group sponsorship.

We wish to go on record as having a basic policy in all fisheries legislation wherein thorough consideration must be given to-

1. Conservation of the natural resource by judicious application of restraints, but strict enforcement of those restraints found to be necessary.
2. Opposition to the removal from the public market of any specie of fish, by legislation. A natural scarcity of the specie will be reflected on the market thru normal channels, wherein legislative removal is governed by interested segments only, and inherent rights of the general public ignored. Proven Conservation legislation to be excepted.

3. The biological and research information emanating from the State Department of Fish and Game MUST BE sufficiently thorough to prove that a distress situation exists in the case of any specie of fish on which commercial restraints are placed, while recreational facilities are condoned. If any fishery is in distress to the point where restraints are recommended, based on thorough research data, it must apply to all interests as a protective measure.
4. The economic factors of interested segments to be given adequate consideration - always with the rights of the majority - the general public - having priority. The commercial fishery, the food producing segment, is the only avenue of availability by the general public to secure seafoods. Thru distribution on the market, all peoples have an opportunity to obtain this food, if they so desire, while securing this food by direct take at the source of supply, either as a means of obtaining the food as such, or as a recreational feature. When there is a proven over-abundance of food, then recreation should be permitted the excess - NOT recreation be given unlimited privileges and supply of food be restrained.
5. We strongly recommend regulation by size limits and seasonal control, as it has been adequately indicated in all cases where these factors have been a governing feature, the fisheries have been more productive, and of better quality. This applies equally to salt water and fresh water fisheries.
6. We urge this Interim Committee to give due thought to the future potential food supply from marine sources, acknowledged by inter-national authorities to be the greatest avenue of supply of food for the increasing world population, and that adequate funds be provided to secure competent people in the field of marine research, to be a continuous program, and place the State of California, with its unknown marine wealth at its doorstep, to be a forerunner in the establishment of this new industry, as it has been the pioneer in establishing other fishery industries, and thereby contribute to the economy of the State and of the world, a sound, sensible and proven source of wealth secured thru sound, sensible, and proven legislation.

We believe it would be much wiser, if a choice was necessary, to sacrifice the loss of a recreational dollar in favor of a State, National, and Inter-National fisheries market, however we do strongly advocate and urge this Interim Committee to encourage in every possible way, a meeting of minds of all interested segments of the fisheries before enacting any type of fisheries legislation. We are of the firm opinion that these segments can and will resolve their differences to the best interests of all, and to better legislation over fisheries.

If this basic policy is applied to every Bill in which we expect to participate before the Legislature, we feel sure it will be supported by public testimony indicating overwhelming approval and opposing legislative measures which restrain and discourage rather than promote and encourage.

Respectfully submitted,
ADVISORY COMMITTEE ON FISHING,
California State Grange
Florence McDougall, Chairman -
Newport Beach

Members:
Mrs. Nellie Gillette, Wilmington
Mrs. Mary Barrett, San Diego
Mr. Roy Faught, Bodega Bay
Mr. Ray Carpenter, Bodega Bay

FRITZ MANGOLD, WESTERN STATES CONSERVATION LEAGUE OF CALIFORNIA

I am here today representing The Western States Conservation League of California who have instructed me to appear and give you a resolution adopted by their Association September 14-15, 1957, Resolution No. 1:

WESTERN STATES CONSERVATION LEAGUE
of California, Inc.

September 14-15, 1957

Resolution Number 1.

RESOLVED, that as interested Sportsmen and Conservationists of the WESTERN STATES CONSERVATION LEAGUE, OF CALIFORNIA, INC., concerned with the future welfare of the fish and game problems of our State and,

RESOLVED, to support the House Resolution Number 124 as passed in the 1957 Legislative Session and,

WE FURTHER RESOLVE, to support to our fullest extent the intent of House Resolution Number 124 and place our organization on record as being in fullest accord to cooperate in whatever method necessary to both the Assembly and Senate Interim Committees now and prior to the 1959 Legislative Session, believing full well that possibly this investigation being of such wide scope would and should end all further needs of such investigations in the years to come.

WESTERN STATES CONSERVATION LEAGUE,
OF CALIFORNIA

Delivered to:
Assembly Interim Committee of
Fish and Game.
October 4, 1957
San Pedro, California

CHAIRMAN BELOTTI: How old is this organization?

MR. MANGOLD: In the past two months we have been in the organization period and beyond that I do not have much information on the group. I have been asked to represent them here today.

CHAIRMAN BELOTTI: Thank you very much, Mr. Mangold. Now we'll take up skin diving.

HOMER LOCKWOOD, PRESIDENT, CALIFORNIA COUNCIL OF DIVING CLUBS

We represent the clubs. The clubs themselves have grouped together and formed an association, and I am acting as their spokesman here.

CHAIRMAN BELOTTI: I might comment on the fact that those interested in skin diving play quite an important part insofar as it applies to the taking of abalone and spiny lobster. We thought we would put it on the agenda, just in the event that it would generate a sufficient amount of interest to bring you fellows out here and if you had any problems, we would be glad to listen to whatever you had to offer and endeavor to assist you in resolving them.

MR. LOCKWOOD: I appreciate your interest very much. We have been active in legislation in the past. We have at the present time AB 3342 (lobsters) which is in interim study and also AB 3704 (abalone). The abalone legislation was introduced in the 1955 session, was passed and was observed for a two-year period of study. It was not reenacted in the last session of the Legislature. I was not aware of the time that it was heard in committee, and as a result, I was not there to speak before you as I was on AB 3342. We felt very badly, gentlemen, that the area from Gaviota Point to the north limits of the city of San Diego which had been closed, was allowed to be reopened to commercial abalone divers. The bill was in effect for two years and I believe that there was no serious objection. We had never heard of any objection either from Fish and Game or from anyone to the fact that the Coast was closed to abaloning.

The skin divers as you probably know are increasing in numbers terrifically. Senator Richard Richards said last night that we are getting 18,000 new residents in Los Angeles every month and I think one-quarter of them are divers. If you go down along the coast in Los Angeles, there's far more skin divers working off the beaches

than there are rod and reel fishermen. The sport is growing terrifically and it deserves a lot of attention. It deserves help and it needs help legislativewise. With that many people in the water, we know that abalone are taking a beating. We know that skin diving is offering the greatest amount of recreation to our youth. We have kids in the water that otherwise would be on the street and we're concerned about them. We think it's a wonderful form of recreation. They have to have something to go after. They have to have some interest. When you go dove hunting, you don't leave the gun at home and just walk and watch the doves fly - you have an interest in taking game. So we do take abalone.

The bill was introduced, it was held over and we know that now again we are getting a lot of weekend abalone divers along the particular coast we're interested in. That area has now again been opened up to commercial divers. Previously it had not been. The type of operators who work in that area today are the weekend divers. A lot of them are skin divers. We don't like that either. The area won't stand that amount of pressure. The commercial abalone fishermen who own boats, gear and are licensed by the Division do not, I believe, work in that area. We have been so advised by the patrol. So, we do not feel that we are causing an injustice or any hardship on the commercial industry by reserving that area.

CHAIRMAN BELOTTI: What definition would you place on a skin diver? Would you say that he was commercial or he was a sportsman?

MR. LOCKWOOD: Well, he is a sportsman by law. He only works under a sports fishing license. He is not allowed to take abalone and sell. To do that, he must have a boat equipped with diving gear, not a scuba and not spear fishing. Any diver who works alone and sells his abalone is automatically a violator. We have some but we don't like it.

CHAIRMAN BELOTTI: How far north up the coast can you go and find temperature that you can dive in?

MR. LOCKWOOD: Alaska. In fact, we dive in Alaska all year around.

MR. THOMAS: In this particular area, what is the depth of water that the commercial abalone fisher goes?

MR. LOCKWOOD: He must not take abalone in shallower water than twenty feet. He works in around a hundred, one hundred and twenty, even greater.

MR. THOMAS: But what of the skin diver? How far down does he go?

MR. LOCKWOOD: Fifty feet. Fifty to a hundred.

MR. THOMAS: Is there a possibility that both groups could be permitted to take abalone in the same area?

MR. LOCKWOOD: Absolutely. Our divers very often tap the commercial men on their helmets to let them know that they are there. We can reach the same areas that the diver using heavy gear. We have three boys here today who worked at fifty to sixty feet without lungs. I do myself. The original reason for the twenty-foot law was so that the beaches and the rocky areas along the coast would be preserved for the waders so they could go out and get abalone at low tide. But times have changed.

CHAIRMAN BELOTTI: How long can you stay under water.

MR. LOCKWOOD: Oh, a minute and a half. I would say forty-five seconds would be average for the fairly well-experienced skin diver. I can take four or five abalone in that period of time.

MR. THOMAS: You're not recommending to do away with commercial abalone fishing?

MR. LOCKWOOD: No, sir. We feel that the area for the commercial man is the productive area...the off-shore islands and that's where they take their abalone. We are greatly concerned about the weekend commercial fellow who comes out Sundays in the same area available to

sportsmen. That I would like to see stopped and this law did that. Since the law has been repealed, they are coming back into those areas.

I gave a lecture at the Bell High School about a month ago to the male student body, and I asked the group, "How many of you fellows skin dive?" There were a thousand in the audience and I think at least 750 hands went up. Now, those fellows are not all experts, of course, but they are interested in going out in the water for recreation. We want to preserve that. We want to give them something to keep their interest up. I want my own boy to be able to go out and get abalone.

MR. THOMAS: This may be off the question, but what else does a skin diver usually take?

MR. LOCKWOOD: Spiny lobster, fish, sheepshead, calico bass, and occasionally a white sea bass.

MR. THOMAS: How do you catch them?

MR. LOCKWOOD: We take them by spear.

MR. THOMAS: I've never been under the water.

MR. LOCKWOOD: I wish that you'd have been with us on our last trip two years ago when we took quite a number of the Fish and Game Committee out on a charter. Seth Johnson, Frank, Bill Grant, Tom Rees, Mr. Miller, and they went out with us to Catalina and they dived with us all day. We wanted to show them what we did. This isn't kid stuff. A lot of divers are young but there is a tremendous number of us--well, I'm a grandfather, I have two grandchildren and another one coming--I'm out in the water once a week every other week. It's a serious sport and a lot of fun.

MR. LIMBAUGH: I have been very closely associated with the skin diving sport for some time and have watched its growth and a number of times I've had to try to estimate the number of skin divers in the area so the information that has turned up I think would be of value to you people considering any legislation. These numbers are based

on the sale of equipment. Unfortunately, that's not the most accurate, although it's probably the most accurate way you can judge the number of skin divers, but it doesn't tell you exactly how many skin divers we have. This thing has grown since World War II from almost no skin diving to a sport where in the United States now there are sold each year a half million pairs of fins. There has been in the last four years seventy thousand scuba units sold. Forty per cent of this sale is in Southern California, which I think is very significant. Los Angeles represents the center of skin diving in the United States.

Recently I had to prepare for a talk for an Izzak Walton League panel discussion in Washington, D. C.: "Spear Fishing in our Underwater Horizons".

"Underwater man's effect upon the marine environment and the regulation of these effects are the problems that must be considered soon if we are to obtain a maximum benefit from our marine resources. We must not, however, lose sight of any factors which simultaneously effect these valuable resources such as natural environmental changes, commercial and sport fishing, pollution and other man-made changes. Within the past decade we have witnessed a tremendous increase in the number of skin divers. At present there are about half a million U.S. skin divers of which seventy thousand use self-contained underwater breathing apparatus, popularly known as scuba.

Approximately two hundred thousand skin divers live and operate in Southern California. The sport is still growing at a rapid rate. Along with the increased number of skin divers, there is an increase in the average skill of the diver and the efficiency of skin diving equipment. These large numbers are not quite so impressive when we consider that the average skin diver still lacks the skill to spear fish. We are fortunate, too, on the California Coast that our fishes enjoy additional protection provided by sea buffs, turbidity, rough water, seaweed and deep areas. Skin divers do not limit their activities to spearing fish. They have been observed to take rocks, coral, sea fans, sea shells, clams, abalone, crab, lobsters, sea urchins, starfish, and a host of other things. They also turn over rocks and coral, lose equipment, poke strange organisms and occasionally kill unnecessarily. The direct and indirect effect of these activities upon our resources must be considered. No real effort has been made to determine the effects of Pacific Coast skin diving on the ocean environment. Subjectively, there seems to be a decline in numbers of a few animals commonly taken by skin divers. In cases where animal populations are drastically reduced, it seems wise to restrict their take, regardless of cause. We must restrict commercial fishing and sport fishing as well as spear fishing. In some parts of the country there exists little feeling between sports fishermen and spear fishermen. In general, conflict exists on the California coast although there have been a few recent incidents

between the two groups. In all probability, a major conflict will rise as both groups grow and the catch per unit of effort drops to a low point.

"At the present time most of the sport fishing catch consists of coastal pelagic, deep water forms and sandy surf forms. The skin diving catch comes almost entirely from the shallow rocky reefs. The total skin diving catch is much smaller than the hook fishing. Even the catch per unit of effort seems to be higher with the hook and line fishermen. By far, the largest catch is that of the commercial fishing boats. A few species are commonly sought by both spear and hook fishermen. Due to the increased fishing pressure, there seems to be no real danger of exterminating any of the common species at present. There will, however, be a reduction in average size and average catch for fishermen. Scuba divers have been severely criticized probably unjustly for spear fishing. It would, on our coast, be foolish to prevent them from spearing fish. They seldom bother with very shallow water forms taken by the average skin diver. In this manner they relieve some fishing pressure in the more heavily fished areas. In addition, many of them are only casually interested in spear fishing. Much of their time is devoted to photography, exploration, and nature study. All of these activities are worthwhile contributions.

"It is obvious that certain species of organisms are susceptible to scuba hunting pressure. Two California fishes should be protected from scuba divers. They are the gulf and broomtail grouper, both of which are rare and quite restricted to Southern California. They are unafraid and are actually attracted to scuba divers. They are large and easy targets but difficult to bring in. The California Skin Diving Council proposed protective legislation for these fish but they did not want to admit that spearing could hurt any fish population. This should not be interpreted as an antagonistic attitude toward conservation but is an attitude adopted to protect their young sport. The individual skin divers adopted an effective code which made it unethical to spear grouper although that is still quite legal. Some local clubs adopted resolutions not to allow their members to spear them and they are not acceptable in San Diego spear fishing contests. Only four or five have been speared since I published an article on their plight several years ago, and their numbers seemed to be about the same as they were then.

"Many of us who have been diving for quite a number of years have noticed a decline in the inshore population of abalone. This decline correlates well with the increased abalone fishing and the increased number of skin divers. It does not necessarily mean that increased fishing or skin diving is the cause. It is our view that certain organisms have to be protected from skin diving pressures. It is, however, foolish to enact laws based only on opinion. It is foolish to close large areas to all surf fishing and not to other types of fishing. We do not know the effects of spear fishing on all species of fish. We can, however, safely say that the direct effects of spear fishing as currently practiced on pelagic and coastal forms is negligible. Spear fishing could conceivably be used to benefit sport fishing by removing predator organisms seldom taken by other fishing methods.

"Legislators acting to regulate skin diving must remember that this increasingly popular sport furnishes the healthy outdoor activity

to thousands of our citizens. In addition, spear fishermen take some fishes otherwise unavailable. Certain California organisms have seemingly declined in numbers as the number of skin divers increase. Specific examples include the green abalone, the cabezon, spotted sand dabs, and California sheephead. All of these are still common and heavily fished. The green abalone is a popular food snail living in depths ranging from the inner tidal to sixty-five feet. The deep proportion of its range is the object of commercial fishing and in the shallow portion it is heavily fished by skin divers. It's apparent that the existing regulations are inadequate. Cabezon are rocky bottom fish, important commercially in Central California. During the winter months they spawn in shallow water where they are easy targets for the spear as they guard their nests. Spotted sand dabs which live in-shore with eel bass and much less common now than they have been, possibly because of the decreasing California water temperatures. Whatever the cause is, steps should be taken to protect them. California sheephead are popular fish, frequently taken by skin divers. They grow rather slowly and recruitment is probably small. The decline of the California sheephead which preys heavily upon sea urchins may in part be responsible for the increase of sea urchins which seems to be destroying our kelp beds.

"Certain areas must be set aside as parks for future study and to protect their natural beauty. Some underwater parks should be protected from all types of fishing, pollution and other man-made changes. Underwater man's effect on the complex marine environment is not insignificant even in its present day infancy. At present, we lack sufficient data on which to regulate intelligently and adequately. It is important that we act soon in establishing research programs in order to utilize better valuable resources for present and future generations."

MR. THOMAS: Are you advocating legislation restrictive to skin diving?

MR. LIMBAUGH: I am advocating that steps be taken to understand the problems of skin diving so that legislation may be made.

MR. THOMAS: In the first part of your article there, I was led to believe that you were recommending that something had to be done immediately on skin diving.

MR. LIMBAUGH: I did mention that there was a fish that is threatened but the only recommendation I am making is that research programs be established for study of this rapidly growing problem. It is a problem that we have a chance to get ahead of now, we won't have next year.

REG W. RICHARDSON, LA JOLLA SKINSTERS AND ALSO THE SAN DIEGO
HARBOR GRANGE

Our main objection is that bill. The closing of any particular coast line puts a pressure on what's left open on either side. San Diego sportsmen as well as commercial interests did not like the pressure applied to the San Diego area by this abalone bill, AB 3704. For two years, it pushed all commercial activity into our small eight miles of kelp bed. Now these boats are active again in the reopened area when they can't dive beyond. I might add that they all rush to the Salt Creek area of Laguna and found that abalone are not there like they used to be. They do say that it's from pollution by the outfall in that area.

We offered to compromise to take the green abalone off the commercial list. It's not used to any great extent by commercial processors of abalone. It's not a problem of commercials. But that compromise was turned down; otherwise that could have been off for two years also. As to the weekend divers or weekend fisherman, I think you will find that economic conditions will take care of that, in that processors of fish or anything else have certain boats that they buy from and if their supply is adequate, why they will not even talk to the weekend person that's bringing in a little bit here and there. As best as I can find, no weekend diver is selling abalone to any processor, so they must be selling it direct to the public. It adds up to the same thing that these bills were put in on black bass. The abalone bill as well as the others were sent to this Committee because there weren't any facts or figures to base on until they had research to do so and that's what we're waiting for.

I'd like to speak a little bit on skin diving. There are a few things that need taking care of and one in particular but it hasn't been brought up. There have been instances where skin divers have been

shot at by men on sport fishing boats and other boats who commonly shoot at seals. As skin divers come up out of the water, they look very much like seals in their wet suits which are black foam rubber and have a full cap over their heads. I think it would be advisable that legislation be enacted stating that they should have some identifying feature about the tops of their helmets so that they won't be mistaken for seals.

CHAIRMAN BELOTTI: If that happens once and they miss a fellow, I think he'd get something without waiting for a law to be enacted.

MR. RICHARDSON: It happened to one of our ace divers in the San Diego area, Ron Church. There's a lot of friction over it, naturally. It's a mistake that could happen very easily because they do look like a seal coming out of the water or even laying there from a distance of even fifty feet. It would be very hard to identify unless you took the time, but these guys that are standing up on the bridge with a gun in their hand shooting seals to keep them away while their fishermen are fishing so they just raise up and take a shot.

CHAIRMAN BELOTTI: Has the matter ever been taken up in your Association?

MR. RICHARDSON: We have talked about it in our organization in the San Diego Council of Skin Divers but I don't think anything has been done yet. Scuba instruction is given now through quite a few cities. San Diego has it and Los Angeles has very good instruction but there should be a law stating that it cannot be sold unless the person buying the outfit has credentials to show that he's had the training because it is a very dangerous instrument.

MR. ALLEN: About three or four years ago you will recall that there was a picture shown called "Navy Frogmen" and youngsters rushed into surplus stores. There were certain places renting skin diving gear. Hanson, over in Catalina, in my presence brought a youngster

out that had an oxygen tank, a makeshift affair that was never designed to go out in salt water. It was purely and simply some surplus aviation stocks. They brought that youngster out at St. Catherine's Bay. He was 12 years old and had gone over to this place and rented that stuff without parental consent or anything and the guy rented it to him. I'm surprised and amazed that you fellows have not run across a skeleton sooner or later dangling in the weeds down there. I wonder if there isn't some recommendation which you might be able to bring to the Fish and Game Commission or some other proper Commission regarding the proper inspection of this particular type of gear.

Knowing economic situations as well as you do, there are some manufacturers of very excellent products and once that gets to be a popular thing, there is always the imitator who may not be as intensely honest as the manufacturer of the outstanding gear. He is the character who wants to make the fast buck. Unfortunately, we do have a few of those people. You have well sounded the warning here today that there should be some instruction, some indication that these people know how to use this apparatus and this gear. There are fourteen-carat fakers roaming this earth who could probably go in and ruin an industry, ruin a sport and bring about a certain amount of misunderstanding that would discourage this particular type of recreation that you have.

MR. RICHARDSON: There are many types of products on the market but from Mr. Limbaugh's figures the amount of skin divers did drop off last year. But it's still big business. Archery surpassed skin divers through the country and so the enthusiasm has dropped off, but there's still the great danger that anybody can go in and hire equipment which is very dangerous without previous instruction in how to use. Even in the commercial field we've lost two abalone divers in the last month that simply transferred from heavy gear to the face piece type

of gear which they thought they knew how to use and the first time they went down they didn't come up. Nobody exactly knew what happened, but it was using something they weren't familiar with and this aqualung is just as dangerous. A kid can just get in fright from holding his breath at ten feet and that's the end because there's nothing they can do for him; it damages his senses.

MR. THOMAS: With two hundred thousand skin divers, do you think there's any danger of depleting our abalone along the coast line?

MR. RICHARDSON: I did want to bring that out. We do have a size limit which is the thing that controls it and always will if everybody practices not taking less than the size. The interest has dropped off in skin diving and club activities.

CHAIRMAN BELOTTI: Do you concur in the testimony that one-third of the people coming to Los Angeles County become skin divers?

MR. RICHARDSON: I can give one thing that would clear that up real quick. I forget what percent of the people in the United States can even swim but it's not even five per cent. They won't be skin diving.

CHAIRMAN BELOTTI: Thank you very much, Mr. Richardson.

JOHN LUHNOW, SECRETARY, SAN DIEGO SKIN DIVERS

We've been quite aware of the safety factors involved for some time. In fact, we instituted the San Diego City program and the basic conclusion that we have come up with is that it must be regulated possibly even to the extent where each individual diver must have a card like a driver's license. That would be just about the simplest and quickest way of regulating it.

MR. THOMAS: You mean have the Fish and Game Department issue the permits?

MR. LUHNOW: Well, we haven't figured that part out. We would regulate it. That would be the simplest way to do it. It would be

a type of recreation thing.

CHAIRMAN BELOTTI: You haven't decided though the definite recommendations that you would propose to make.

MR. LUHNOW: No.

CHAIRMAN BELOTTI: Thank you.

JAMES CHRISTENSEN, LONG BEACH

I'm here as a private citizen although I belong to many of the organizations that have been represented here today. I am a member of the Long Beach Neptune Club, a member of the California Council of Diving Clubs, of the Skin Diving Committee of the Southern Pacific Association of the A.A.U., and I am Captain of the 1956-57 National Champion Skin Diving Team of the United States. We recently returned from Yugoslavia. I have also served as coordinator in the Los Angeles County Parks and Recreation Department's underwater training program which is specifically interested in spear fishing and skin diving. This is the card that we have out now. We've got about a hundred and fifty instructors in this immediate area who are doing a great deal, we feel, to take care of some of the problems that have come up here.

The skin divers I think at the start were kind of a bunch of rugged individuals, and down through the years I think that they have gradually resolved into a responsible group. I personally feel they are doing a reasonably good job of regulating.

Mr. Allen here was speaking of the manufacturers. This actually was a greater problem three years ago than it is right now. Through Parks and Recreation, we have trained individuals who are writing up the advertising data and the safety data and various other material for most of the manufacturers of self-contained breathing apparatus which is the major killer. I mean the skin diver knows he has limitations and your vast majority of drownings are found in the self-contained

breathing apparatus. A hundred feet is just like five feet and you don't really notice the difference. In the hands of an untrained individual, it could be extremely dangerous.

MR. ALLEN: Jim, were you on the Bay watch three years ago when they went down and brought that kid out?

MR. CHRISTENSEN: No--I know all the boys in the underwater recovery team but I've never been on the bay watch. I've been on it as a guest. You see, I'm not at present with the county but I realize that those things will happen and that's what we're striving to cut down. Actually, the County of Los Angeles has sent out information all over the world on this program. It's been inaugurated around the Great Lakes. We probably have five or six cities that are now carrying on a program like this.

MR. THOMAS: Do you feel that before they can use one of the pieces of equipment they should be licensed?

MR. CHRISTENSEN: Well, licensing is kind of a harsh term. Skin diving actually is very dear to me. It's been my principal sport for the past seventeen years but whether it would be economically feasible to carry on an adequate testing program in order to issue this license, I'm somewhat in doubt.

MR. THOMAS: Why I was trying to think what kind of a bill would be recommended if the Committee were to take care of this problem. How would you regulate it? Would you say that you can't use it unless you had so many hours of experience? How could you prevent the use of the equipment in taking fish?

MR. CHRISTENSEN: Well, like so many hours of experience, possibly with one individual he would have ten hours of experience and another individual might have one hour of experience so it's extremely difficult to form a basis upon which to issue the licenses.

MR. THOMAS: What would you recommend that this Committee do then?

MR. CHRISTENSEN: I personally think that it's the responsibility of the divers and of the areas that are fronting on the water - they have to carry on a program to educate the public - have instruction available. We have a great deal more divers now and possibly as many drownings, but the number of divers is consistently increasing and the percentage of drownings is less. I think the crucial period is over. I mean the people have been awakened to the fact that this isn't a play toy, it isn't something that a non-swimmer should put on and go out with.

MR. THOMAS: You don't believe it should be regulated by law, then?

MR. CHRISTENSEN: At the present time I do not. I think the war surplus equipment and things of that nature are gradually diminishing. The people who were using them have been talked to and they've gradually done away with them. It's not a hundred per cent thing, yet what can you do that is a hundred per cent?

MR. ALLEN: Then you subscribe probably to the theory of Myron Cox of the City Park and Recreation Department underwater rescue team that's on the bay watch, that any certification should come in a manner similar to the Red Cross lifeguard service.

MR. CHRISTENSEN: Very definitely. Very definitely.

MR. ALLEN: An appeal to the Red Cross to add that as a part of their activities in water safety would probably be a good idea, with the added assistance of you people as instructors. I think you have been in several instances an instructor or an examiner for the Red Cross, haven't you, Jim?

MR. CHRISTENSEN: I've worked with them, yes. In fact, the Red Cross has done a lot of work and they have written materials at the present time concerning skin diving.

MR. ALLEN: In other words, to license a person of this nature like you would with a driver's license, you'd have to create a policing

unit. That's something again. We have testing units. The City of Los Angeles Building and Safety Department tests outboards for safety and has as great a laboratory as the Underwriters Laboratory. It is highly recognized as far as equipment is concerned.

MR. CHRISTENSEN: As you said earlier, there are certain unscrupulous individuals who are selling things principally through the mails-- I know of no one in this area--that actually do not belong in the kelp. In fact, they were made for a pressure that diminishes rather than one that increases and by modifying, they can be used, but not safely. This type of material should be stopped but possibly through some regulations the source apparently has decreased and the use has gradually stopped.

MR. ALLEN: In the City of Los Angeles we learned about three years ago, right after that Navy Frogman picture, there was ten or twelve million dollars worth of that stuff sold. A lot of it was, as I say, of inferior design. The valves might have been corroded from salt water and so forth.

MR. CHRISTENSEN: Definitely. I've been listening all morning and this afternoon and possibly this isn't the time to bring up pollution but the S.P.A. A.A.U. Committee had held all their eliminations at Cabrillo Beach. This year the Palos Verdes governmental agencies were concerned about the health value down there and they all recommended we not hold them there. I can certainly substantiate Conrad Limbaugh's testimony earlier; the White's Point area had been one of my favorite areas and it could be likened to a mountainous, temperate area that's been burned off. I mean it's completely dead underneath. There's very little activity there at the present time. I ruptured my eardrum over at Cabrillo Beach last year and went to the doctor immediately the morning following the injury. He treated it and he asked me why I hadn't come in earlier. I told him I had come in as soon as

possible -- he said, "Well, with an infection like that you must have waited at least five or six days." I said, "No, actually it was a matter of about fourteen hours." I didn't give any report to anyone concerning the examination. I'm not a scientist; I've had enough science in school that I'm familiar with the ways but I have no material other than my own observations. I do know that the life out there is diminished to a terrific extent.

CHAIRMAN BELOTTI: Thank you for your testimony. Now, do you have some more, Mr. Richardson?

MR. RICHARDSON: No. The main thing I want to point out is this: anyone of you here could go into a store tomorrow and buy an article for your son--maybe 17, 18 or 19--and hand it to him for a birthday gift and he could take it out and use it, unless he went in to a store that said "Well, have you had training?". Now there are a few around San Diego - San Diego Divers Supply - that won't rent one or sell one unless they have that training but most of you could go in, buy it, and hand it to him. A regulation to prevent the sale without some certificate from Red Cross or maybe the Los Angeles County Recreation or whatever it is might prevent the loss of one life or it may prevent many. We know that because it happens all the time.

CHAIRMAN BELOTTI: There's much to be done.

MR. RICHARDSON: Just that alone is a big thing.

CHAIRMAN BELOTTI: Thank you. Now, Mr. Denton.

CLYDE DENTON, CALIFORNIA GAME IMPROVEMENT ASSOCIATION

We have a proposed plan for big game management in California. I've prepared it in writing so therefore we will submit it to you. I would like to comment on a few items here so that it will be a little more understandable to the Committee.

In the Utah Fish and Game Bulletin there was an article which I am presenting in support of our program and contention that elk is not

a detriment to deer. Inasmuch as stockmen contend that the deer eat native brush which helps the cattle, and the cattle eat all the blades of grass which in turn helps the browse feeding animals, I want to draw special attention to this article as it appeared in the Fish and Game Bulletin, published by the State of Utah. In that they helped a condition in which a very poor deer range improved to an excellent deer range where they had been concentrating their largest herd of elk and facts will bring this out in the article itself. Also, in the Colorado Outdoor Magazine, under the title "Carrying Capacity Studies", on pages 4 and 5 it brings out the carrying capacity and the forage use of domestic stock and game. On statistics based upon the animal unit months of forage consumed by big game, the Bureau of Land Management estimates that in the Owens Valley area and through there, twenty-two thousand head of deer consume twenty-one thousand animal unit months of forage. In other words, they contend that twenty-two thousand head of animals consume the same amount of feed as, under their plan, one-hundred and ten thousand head of domestic sheep will consume. Under this program, under a study conducted by the government on land fenced off even to the specific game to make a thorough study, we find that deer consume one-third less than do domestic sheep. I wished this all to be written into the program so that it'll give you a clear picture as to the practicability of our program. I'm sure by studying the facts you will see that our program is not a surmised program, it's proven by fact. I hoped to have another article which I was unable to locate which would prove more than these two articles together. That takes care of our big game program, and we have statistics here to back it up. We have letters from the Department of Interior showing some of the statistics pertaining to domestic stock; in other words, one thousand head of elk under this program will produce more money than the 500,000 head of domestic stock that

now use this land. In this program, if you study it, you will find that using one-twelfth of the amount of animal units forage under this plan will produce \$70 million dollars a year for the State of California whereas the present grazing produces \$332,419.

I want to comment here in regard to the deer seasons and call your attention to an article which the Department of Fish and Game saw fit to publish in Outdoor California, which must be an admission by them that they did not heed the advice of the people themselves. They go by small minority groups. We were overwhelmingly opposed to stocking trout in Chino Lake, yet the Department of Fish and Game went ahead and abided by a small group to the detriment of all of us, especially the fishermen. Well, I think that will take care of that.

Another item is the criticism we have to offer in regard to the handling of special sales, permits, etc. Our regions were set up in California to best represent the people. We opposed establishing them when they were proposed because we felt that it was just another way of spending money; in other words, just more administration. They told us it would cost us about \$18,000 a year and now it's cost us over \$125,000 a year to operate these five offices. Yet, instead of being representatives of the people, giving the facts and having the hearings within the local districts, in Region Five, if you attend the drawings for the special hunts, you must appear at Inyo, Bridgeport and those places, yet the headquarters for Region Five is right here in Los Angeles. The majority of the people are right here in Los Angeles. Los Angeles would be the central point representing Region Five. People from El Centro, San Diego or any place like that would be as close to Los Angeles or closer than they would be to Bridgeport, so we feel that it's certainly improper to have these hearings held in remote areas. The state is cut into five regions so that it could properly represent the people affected within the area who should be

heard within that area.

By the way, the California Game Improvement Association requested that I express their appreciation for the fine work that your group did in compiling your Senate Interim Committee Report which has received much criticism and much praise. Believe me, we feel that you didn't overstate the facts one bit; we're for you one hundred per cent.

MR. THOMAS: That report you speak of was the Senate Report and we are the Assembly Committee, but from what I gather from your testimony here, you don't feel the Department is doing a good job?

MR. DENTON: No, sir, we do not. It is not doing a job of game management in big game.

MR. THOMAS: How many members are in your organization?

MR. DENTON: Well, we represent about forty-seven clubs and I would say they average about one hundred members each.

MR. THOMAS: Four thousand seven hundred people are dissatisfied with the big game program?

MR. DENTON: Well, that would be a gross understatement.

MR. THOMAS: It would be?

MR. DENTON: Yes, that would be a gross understatement. To give you a little illustration, we've had meetings in regard to these special hunts here throughout Southern California. The Southern California group overwhelmingly opposes these special hunts, yet the Department of Fish and Game can turn the facts around to where it will look like it is the opposite which is not true. There are many, many angles on seasons and so forth which have been presented to the Department of Fish and Game. We have had certain officials from the Department say that an organization is opposed to something one hundred per cent, and yet we have the president of that organization right at the Commission meeting speaking as a proponent of the bill. Perhaps the job is entirely too big for the Department of Fish and Game. That's why

we have come along and proposed this plan as we have for the simple reason that they're doing a tremendous job on fish and the like of that; fine, let them do that job. They have certainly proved that they are inadequate in handling the big game picture. Take your July Elk Season -- isn't that ridiculous, gentlemen, to have a July Elk Season? You're going to kill either a cow or a bull. Supposing they kill a cow that's got a calf. That calf is going to starve. Is that producing nice, strong, healthy breeding stock? That is, if it doesn't starve. Is that conservation? Is establishing a season at a time when just a toss of a match may destroy the whole forest -- is that conservation? Believe me, there are many, many angles from the big game standpoint and we feel that they do not know the answer. Even if they know the answer, they make no attempt to correct the picture.

MR. THOMAS: Have these matters been taken up with the Department before?

MR. DENTON: Yes. Many times. I would like to even submit a program in addition to what we have here.

MR. THOMAS: Have you submitted that to the Department?

MR. DENTON: This we have submitted to the Department, to the Wildlife Conservation Board, to the Commission -- we have never had a reply. Believe me, gentlemen, this will not cost the state one dime. It will be raised entirely by the sportsmen and at the same time this will provide recreation for the sportsmen for one-third of what it's costing him to go outside of the state to get his recreation right now.

MR. THOMAS: Your problem is not with the man in the field, the Fish and Game employee, is it?

MR. DENTON: No, sir. It is not. We can only do as our boss tells us to do. It is much higher up the line than that. The mechanics, the set up of the whole thing is all wrong in the big game field. I used to be a packer and guide. I specialized in elk, deer

and bear and some of the practices that I've seen in the Department of Fish and Game -- well, it's anti-conservation. It's in reverse.

CHAIRMAN BELOTTI: Do you do any work with the California Wildlife Federation?

MR. DENTON: No. At one time we were a member and a delegate to the California Wildlife Federation. We had to withdraw from that Federation - that is speaking of California Game Improvement Association. The actions that they've taken were absolutely contrary to good conservation practices. There seems to be a clique that were at the head of that were, let's say, in the interest of big stockmen.

Trout - fine - they likely pour millions of dollars in that. What do we get in hunting? The only thing that is spent in hunting is on ducks. The State of California has spent of these monies over five million dollars in the interest of ducks and we already have a federal support for that. We would like to see a program whereby a percentage of the money taken in for any respective field would be spent back for the reproduction and propagation of that particular sport. Whether it be salt water, fresh water, small game or big game. It should be that way. If you will look at the expenditures which are in this Report of the Wildlife Conservation money spent and see how much money is being spent for big game, gentlemen, it will give you cold chills.

CHAIRMAN BELOTTI: Mr. Denton, did you read the report by this Committee that we submitted to the Legislature at the last session?

MR. DENTON: No, I don't believe I have.

CHAIRMAN BELOTTI: So, you were referring then to the Senate Interim Committee Report on Fish and Game?

MR. DENTON: Yes, that's right. I just received that lately and I had a chance to read it once but I'm going through it again and I think I could read it many times.

CHAIRMAN BELOTTI: Ours came out last March. You should read that

one also.

MR. DENTON: No, I didn't get to see that one. I would like to submit to each one of you gentlemen a copy of our program which we supplied the Department of Fish and Game. We felt it was a good program and it wouldn't cost money to them - it actually would make them millions of dollars. We never even got a reply on it. That pretty well covers my program. (See Exhibit A, attached.)

CHAIRMAN BELOTTI: Thank you very much.

JOHN T. MEYERS, PINES TO PALMS WILDLIFE COMMITTEE

I'd like to concur with Mr. Denton in his remarks about the Fish and Game Department ignoring the property owner and the areas represented for this reason: the deer season, for example, when there was game to be had and when it was plentiful, we had a short season. In our own particular area - in the area that I refer to now, we're confronted with a longer season and by far less deer to hunt. I fail to see where this falls into the category of conservation. The suggestions that are made by property owners - and when I say property owners I'm talking about ranchers. They have to walk a half mile across a field to talk to a farmer to convince him that he should come to a meeting to partake in the argument that concerns him and his property. You've got a problem. A man's got a lot of work to do and when he gets through with it he surely doesn't feel like sitting up half the night talking to a lot of fellows. He'd rather be in bed. These people are the ones who oppose the unrestricted use of this land when they can't stand the traffic. Up to now they have not been heard and if they have been, they have received very little consideration from the Fish and Game Department. I feel that through Committees such as yours and through the efforts of those individuals who belong to these various organizations these problems should come up as a district matter in an area in which these people reside and they should govern

and should control it. They know what the traffic will bear and they should be listened to. Take a man who has an office job and you give him the responsibility of saying what takes place two hundred miles from his locale. That's an impossibility. You have to listen to the people familiar with the land. Where do we get a true picture of what this big game situation really amounts to? They have not listened to them to the extent that you are still confronted with the problem of the ever-decreasing deer herd and no attention is paid to this. I feel that the time has got to come when the top men in Fish and Game see that the people who live on the land know what they're talking about and will govern their actions accordingly.

MR. THOMAS: Most of the complaint seems to be at the policy-making level?

MR. MEYERS: That's true. They instigate a winter hunt in an area that can't possibly stand the normal hunting season, then come with the excuse that they're going to open up lands that are not accessible during the fire season, and they open them up after a rainy season.

MR. THOMAS: It seems that ever since the Department was created, we have been hearing a great deal of criticism. What would your organization of people think of placing it back in the Department of Natural Resources?

MR. MEYERS: I think that that would be a wise move, putting men in there who really understand the problem and want to work for the betterment and the preservation of natural resources. There's only so much that it can stand and when it reaches the saturation point, you gain nothing by furthering it for someone's aims who wants to sell a shotgun or a rifle or a bottle of whiskey. That isn't the answer to the natural resource at all. It's monetary to one person, yes, but you have got all the people to think about - not just a small minority.

CHAIRMAN BELOTTI: Thank you very much.

DR. J. M. KOLISCH, PINES TO PALMS WILDLIFE COMMITTEE

There's only one thing I would like to say in connection with what Mr. Meyers mentioned. During the last four years we have made reports to the Fish and Game Commission and we have made suggestions as to the length of seasons and particularly in connection with the change which has taken place there. We have gotten together reports to the Fish and Game Commission for years now and we've been completely ignored by them. They've never even mentioned them. They were complete things, they were not put up by one or two people. These were reports which came out from the grass roots and there has been no indication that we have been given any consideration; yet it was property owners, ranchers, farmers who agreed on them. So that is only one issue I would like to put before you, and as far as other things are concerned, we will take another occasion to speak before you and give you our suggestions and hope that you will listen to us then. We thank you very much.

CHAIRMAN BELOTTI: Thank you, Doctor. Now we're going to adjourn and I want to thank everyone who has assisted in making this meeting a very productive one.

MR. THOMAS: Before you adjourn I want to thank the Chairman and the Members of the Committee who have come to San Pedro, and we hope you come again.

CHAIRMAN BELOTTI: Thank you. It's been a pleasure to come down here and work with the Committee. The meeting is adjourned.

#####

EXHIBIT A

PROPOSED PLAN FOR BIG GAME MANAGEMENT (California Game Improvement Association)

ELK FOR CALIFORNIA

We propose that the State of California adopt a Big Game Cooperative Program like we have for the pheasants except that the big game program be financed 100% by the sportsmen of California, costing our State Fish and Game Department not one dime and at the same time adding a great wealth to our State in revenue - also a great wealth to game for our sportsmen.

By allowing our citizens a chance to invest in big game by buying his hunting license in advance of the hunting season thereby providing funds to import big game into our state at no expense to our State Fish and Game.

We propose that the State of California issue hunting permits for Elk, suitable for our eastern California and our high sierras that is available for such introductions three years hence for the sum of \$50.00. And the \$50.00 received for such a permit be used to import Elk.

Each permit sold with the understanding that for each \$50.00 permit issued that the public would be allowed to participate in a public drawing the same year (the \$50.00 permit becomes valid) for three additional permits at \$100.00 per permit, making a grand total of \$350.00 revenue for each animal imported.

The reproduction of Elk (in which there is ample available stock for this program) is such that by importing in the early part of the year allows for reproduction the 1st year, and assuming that 50% reproductions are female, would allow this first reproduction to itself produce an offspring before the first hunt. With the original importation reproducing three times and the first production producing an offspring we would have 5 animals in lieu of one original imported animal.

Now, let's speculate on the offspring that happened to have been a male at the first birth - on a 50% average of male and female birth rate as in elk, we would only have 4 elk in lieu of one imported.

Let's assume that 350 elk were imported the 1st year, of which 10% were Bulls. This would mean 35 Bull elk leaving a total of 315 female. Let's suppose that 25% were young stock - too young to breed. That would mean that approximately 79 were young stock - not breeders, then let's suppose that 10% of the balance of cows were not breeders. Let's use the (figure 24 sterile non-producing female elk) 212 balance as breeders, of which 106 multiplied by 5 = 530 \div 106 x 4 = 424. The reproduction of 503 \div 424 would make a total of 927 reproduced elk, plus the initial stock of \div 35 Bulls, 79 young \div 24 sterile, making a grand total of 1065 elk at the end of 3 years.

Importation of 350 elk under this plan would offer recreation for 1400 sportsmen the first 3rd year. It would mean \$122,500.00 per year income at the end of the 3rd year for our state.

Of the \$350.00 per animal we propose to use thus:

\$50.00 to go for the transportation in importing the elk.
50.00 to go to the State Fish & Game General fund.

EXHIBIT A

PROPOSED PLAN FOR BIG GAME MANAGEMENT (California Game Improvement Association)

ELK FOR CALIFORNIA

We propose that the State of California adopt a Big Game Cooperative Program like we have for the pheasants except that the big game program be financed 100% by the sportsmen of California, costing our State Fish and Game Department not one dime and at the same time adding a great wealth to our State in revenue - also a great wealth to game for our sportsmen.

By allowing our citizens a chance to invest in big game by buying his hunting license in advance of the hunting season thereby providing funds to import big game into our state at no expense to our State Fish and Game.

We propose that the State of California issue hunting permits for Elk, suitable for our eastern California and our high sierras that is available for such introductions three years hence for the sum of \$50.00. And the \$50.00 received for such a permit be used to import Elk.

Each permit sold with the understanding that for each \$50.00 permit issued that the public would be allowed to participate in a public drawing the same year (the \$50.00 permit becomes valid) for three additional permits at \$100.00 per permit, making a grand total of \$350.00 revenue for each animal imported.

The reproduction of Elk (in which there is ample available stock for this program) is such that by importing in the early part of the year allows for reproduction the 1st year, and assuming that 50% reproductions are female, would allow this first reproduction to itself produce an offspring before the first hunt. With the original importation reproducing three times and the first production producing an offspring we would have 5 animals in lieu of one original imported animal.

Now, let's speculate on the offspring that happened to have been a male at the first birth - on a 50% average of male and female birth rate as in elk, we would only have 4 elk in lieu of one imported.

Let's assume that 350 elk were imported the 1st year, of which 10% were Bulls. This would mean 35 Bull elk leaving a total of 315 female. Let's suppose that 25% were young stock - too young to breed. That would mean that approximately 79 were young stock - not breeders, then let's suppose that 10% of the balance of cows were not breeders. Let's use the (figure 24 sterile non-producing female elk) 212 balance as breeders, of which 106 multiplied by 5 = 530 / 106 x 4 = 424. The reproduction of 503 / 424 would make a total of 927 reproduced elk, plus the initial stock of / 35 Bulls, 79 young / 24 sterile, making a grand total of 1065 elk at the end of 3 years.

Importation of 350 elk under this plan would offer recreation for 1400 sportsmen the first 3rd year. It would mean \$122,500.00 per year income at the end of the 3rd year for our state..

Of the \$350.00 per animal we propose to use thus:

\$50.00 to go for the transportation in importing the elk.
50.00 to go to the State Fish & Game General fund.

25.00 to go to the State Fish & Game as administration cost.
 25.00 to go to the National Forest (Dept. of the Interior).
 25.00 to go to Federal lands such as Taylor grazing and un-
 appropriated Government Land (Dept. of Interior).
 50.00 to go to the Purchase of private lands needed as
 wintering ground.
 50.00 to go to State of California to supplement grazing revenue
 75.00 to go to purchase feed to be fed on winter feeding grounds

This making a total of \$350.00 per animal imported. Under this system the State of California's Dept. of Fish and Game would receive at the end of a three year period \$20,250.00 per year and each year thereafter. Under this system at the end of the third year it would provide \$17,500.00 per year for the purchase of wintering grounds for big game which must be done if we expect to save our present starving Deer herds. At no time would there be a surplus of big game - the demand for big game hunting would be governed by the \$50.00 invested by the license buyer. There would always be more than ample takers for the immediate \$100.00 hunting permit.

Study the letter from the United States Dept. of Agriculture (Forest Service letter) and the letter from the United States Dept. of the Interior (Bureau of Land Management) and realize the full impact of this elk program. Through these letters we find that the entire grazing revenue from 570,419 head of domestic stock is only \$332,614.09 of which the Federal Agencies receive 75% and 25% is paid the State of California (General Fund monies), the Federal agencies share is equal to \$249,460.57 and the State's share equals \$83,153.52. Under this program 1000 head of elk would provide a revenue of \$350,000.00 as compared with the 570,419 head of domestic stock's revenue of \$332,614.09.

#####

PROPOSAL FOR ESTABLISHING A BIG GAME ADVISORY BOARD

Whereas, big game is being denied its share of wildlife Conservation money, which runs into the millions of dollars, and

Whereas, there exists a need for management of our Federal lands in the State of California to the best interest of our citizens as well as to better big game management, and

Whereas, there exists an urgent need for wintering grounds where domestic stock have not, during the summer months, consumed the feed so vitally needed for the survival of big game through the winter, and

Whereas, a greater revenue can be secured by our Citizens under a Big Game management body than is now possible under our present contract, and

Whereas, the domestic stock grazing law as now practiced on our Federal lands are a detriment to our citizens who must earn their living from private lands, and

Whereas, our present Fish and Game officials take an indifferent attitude as to the safety and welfare of our Citizens who use the

country and forest during the summer months for vacationing purposes by exposing them to flying bullets, arrows, fires and other summer hunting season hazards, and

Whereas, the tremendous growth in the Citizens population of our State demands that we act now to provide recreation so vital to the physical and mental well being of our citizens, and to assure that big game will be available to our future generations, and

Whereas, the killing of big game in the hot and torrid summer months, exposing the meat to spoilage, blowflies and other infectious germs so prevalent during the hot summer big game hunting seasons as established by our present system is contrary to good conservation practices, and

Whereas, the killing of female big game at a time when the fawn, calf, or young is not weaned, thereby bringing on starvation of the young stock as practiced by our State Fish and Game officials, and

Whereas, if we expect to save our present National resources such as forest, soil, water, fish and game and etc., we must take away the jurisdiction of establishing seasons and bag limits of big game by our Fish and Game officials and create a big game advisory board, and

Whereas, there is an urgent need for setting aside a percentage of license income to be paid out on predator bounty in curbing enemies of big game, and

Whereas, there exists an urgent need for teaching conservation education of our Natural resources in our public and parochial schools, and

Whereas, there exists an urgent need for additional revenue to supplement or subsidize our State school children lunch money, and

Whereas, big game proof fencing is needed to protect private property, and

Whereas, there can be a greater revenue secured by a big game management program for each the State and government than is now possible under our present system, and

Whereas, 1,000 head of big game animals under our proposed program will bring in a greater revenue than the 570,419 head of domestic stock which now graze on our Federal lands, and

Whereas, at 10 years maturity this plan could bring in a yearly revenue of \$62,653,850.00 as compared to our present yearly grazing revenue of \$332,614.17, and

Whereas, a new source of revenue of \$4,385,769.00 per year could be attained for teaching conservation education in our public schools, and a like amount for the same purposes in our parochial schools, and

Whereas, at maturity of this program there could be a yearly revenue of \$6,265,386.00 to supplement the public school lunch money, and

Whereas, at maturity of this program there could be a yearly revenue of \$4,385,769.00 for administration of the Big Game Advisory Board, and

Whereas, at maturity of this program there could be a yearly income of \$3,132,692.00 for the purchasing of private property needed for big game wintering grounds; and

Whereas, at maturity there could be \$3,132,692.00 per year for fencing private property adjoining Government or State Lands, and

Whereas, at maturity (10 years) there could be a yearly income of \$10,014,515.00 for the purchase of winter feed, and

Whereas, at maturity there could be a yearly revenue of \$3,759,231.00 for each of the two branches of the Department of the Interior Forest Service, and the Bureau of Land Management as grazing revenue in lieu of their present combined yearly take of \$249,460.57, and

Whereas, at maturity the State of California could receive a yearly income of \$1,879,615.50 in lieu of its present yearly income of \$83,153.52, and

Whereas, at maturity there could be a yearly income of \$1,879,615.50 for water pollution abatement, and

Whereas, at maturity there could be a yearly revenue of \$1,253,077.00 to develop the Los Angeles City owned lands in the Owens Valley (an area of approximately 5-1/2 to 8 miles wide by 70 miles long) as a big game habitat area, and

Whereas, there could be at maturity a yearly revenue of \$1,253,077.00 to supplement the National Red Cross, and

Whereas, there could be at maturity a yearly revenue of \$1,253,077.00 to supplement the Community Chest fund.

Therefore, be it resolved that there be established a Big Game Advisory Board to administer big game, seasons, and bag limits for the State of California in lieu of our Fish and Game Commission, and the State Department of Fish and Game, to operate under the jurisdiction and supervision of none other than our State Legislature.

Be it further resolved, that money allocated to the Wildlife Conservation Board, be allocated to the restoration of the respective type of Fish or Game, (on a unit basis of dollar value received for license money) based on the source of income, whether it be fresh water fish, salt water fish, big game, or small game, and that there be established a fresh water fishing license, a salt water fishing license, a small game hunting license and a big game hunting license.

Be it further resolved that grazing by domestic stock on Federal lands in California be abolished, and that at expiration of each grazing right or lease that such leases or rights be terminated, and that at no instance grazing or leasing privileges be extended beyond 10 years from passage of this bill.

Be it further resolved that a minimum of 1,000 head of big game be imported into this State per year (for stocking the range purposes), and that the three year licenses purchase and maturity for the sportsman program be adopted, allowing the sportsman the privileges of financing this program 100%, (except the big game share of the

Wildlife Conservation money) costing our tax payers, State or Government not one cent.

Be it further resolved, that all Big Game license monies be subject to pay the following percentage of revenue to the following mentioned sources.

- 14% to go for importing Big Game.
- 16% to go for purchasing Big Game Winter Feed.
- 10% to go for supplementing public school lunch money.
- 7% to go for Administration of Big Game Advisory Board.
- 7% to go for teaching Conservation education in public schools.
- 7% to go for teaching Conservation education in parochial schools.
- 6% to go to supplement Department of the Interior (Forest Service) for loss of grazing revenue.
- 6% to go to the Department of the Interior (Bureau of Land Management) for loss of grazing revenue.
- 5% to go for purchasing private property for Big Game Wintering grounds
- 5% to go for purchasing fencing.
- 3% to go to State to reimburse the loss of domestic stock grazing revenue.
- 3% to go for bounty to be paid on predatory animals.
- 2% to go to the City of Los Angeles to develop Los Angeles City owned Owens Valley (an area approximately 5-1/2 to 8 miles wide by 70 miles long) lands as a big game habitat area.
- 2% to go to the City of Los Angeles to develop and maintain a first class zoo.
- 2% to go to the Community Chest.
- 2% to go to the National Red Cross.
- 3% to go for pollution control in curbing pollution of our State's waters by our cities and industrial operations.

Be it further resolved that anyone supplying information leading to the arrest and conviction of a willful violator of big game laws in California be paid a \$50.00 reward, and that the minimum fine for violating the big game law be set at \$100.00.

#####